"We only have two demands!
Why don't people just give us what we want?"

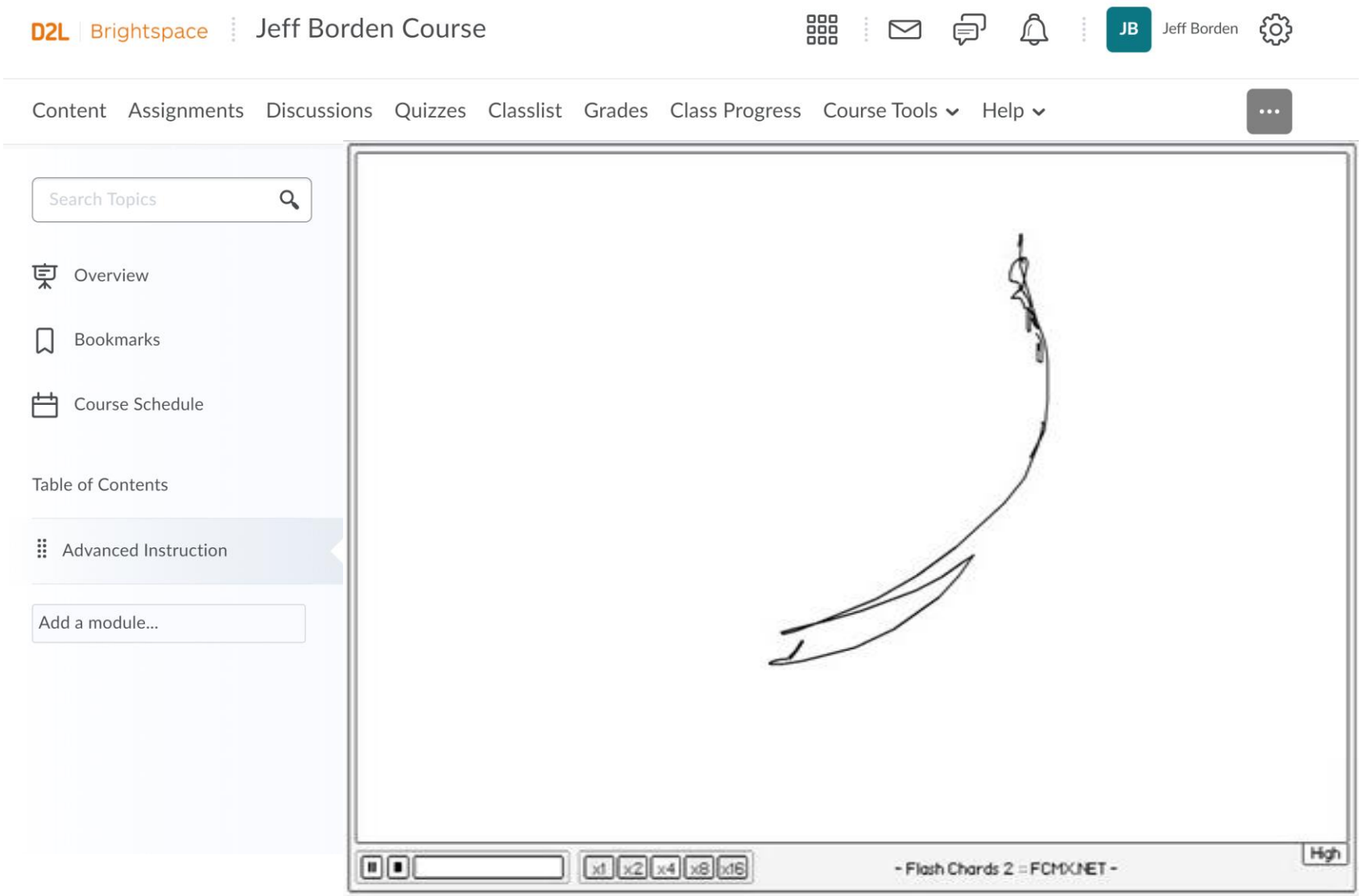
DO YOU REALLY WANT A CULTURE OF LEARNING INNOVATION?

DR. JEFF D. BORDEN

VICE PROVOST OF LEARNING EXPERIENCE

NATIONAL UNIVERSITY

Teaching Perspective (Sketch of a Woman from the Inside Out)



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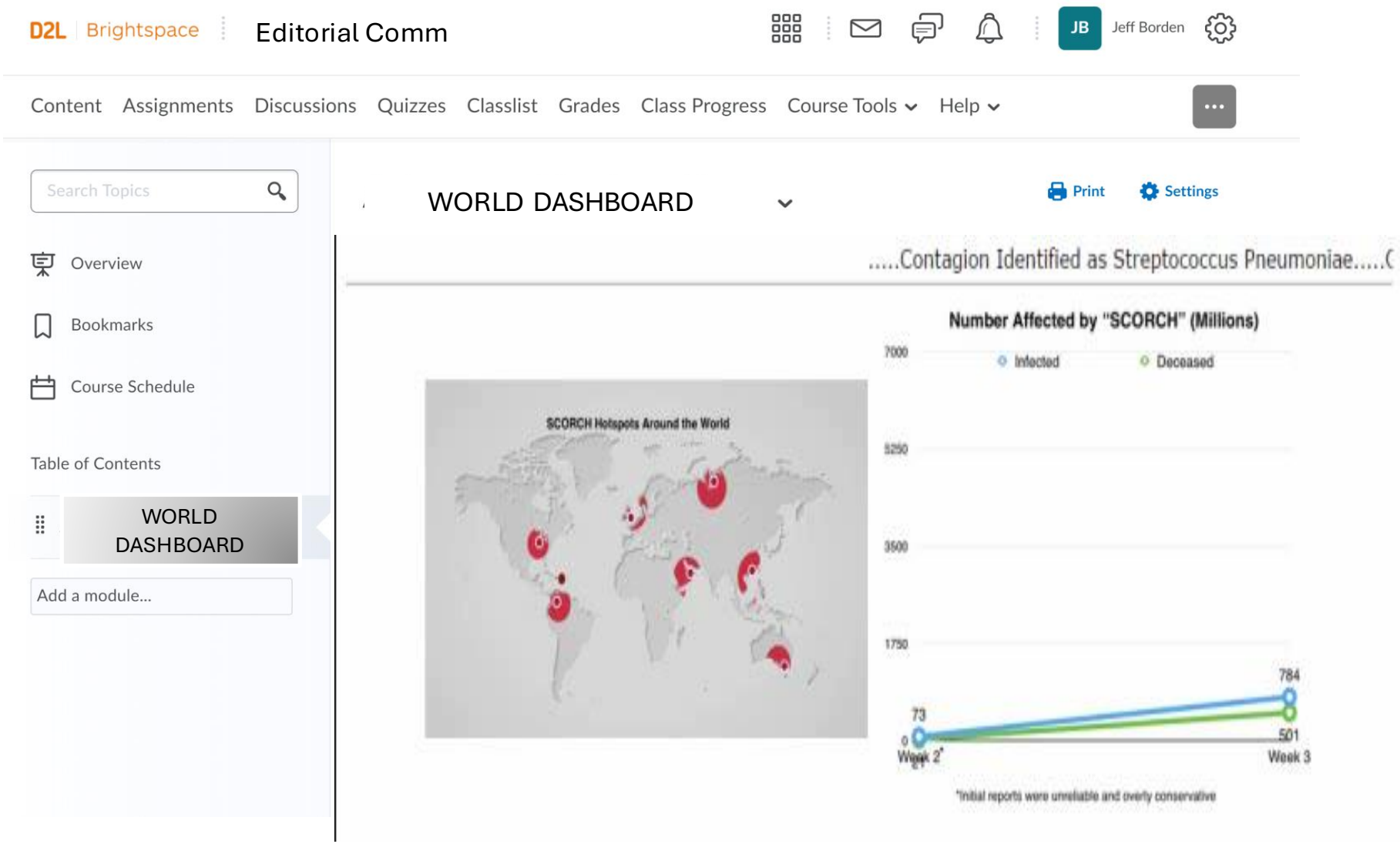
Gamified Learning: Contagion



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Cut Off R.E.M. = B.A. of .10

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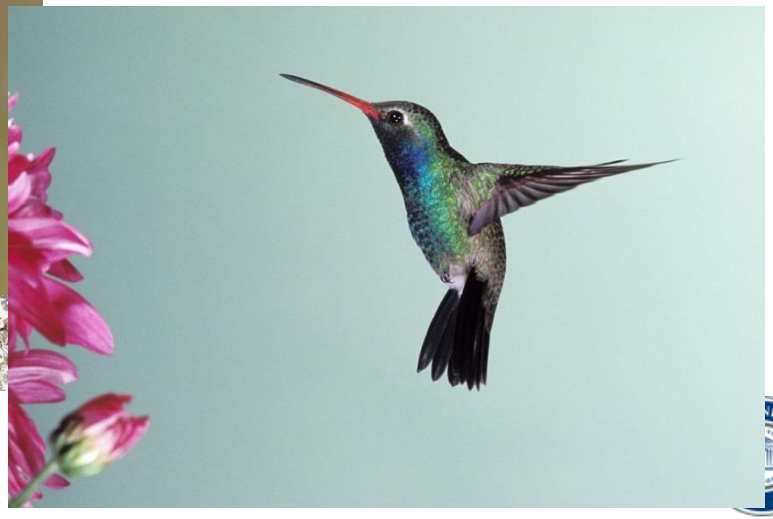
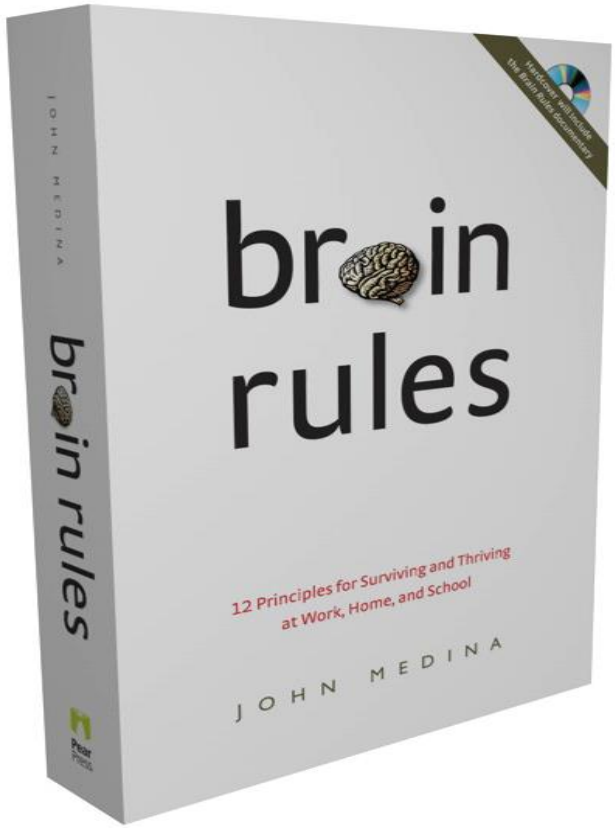
Student Health

School Start Times

Education Commission of the States www.ecs.org





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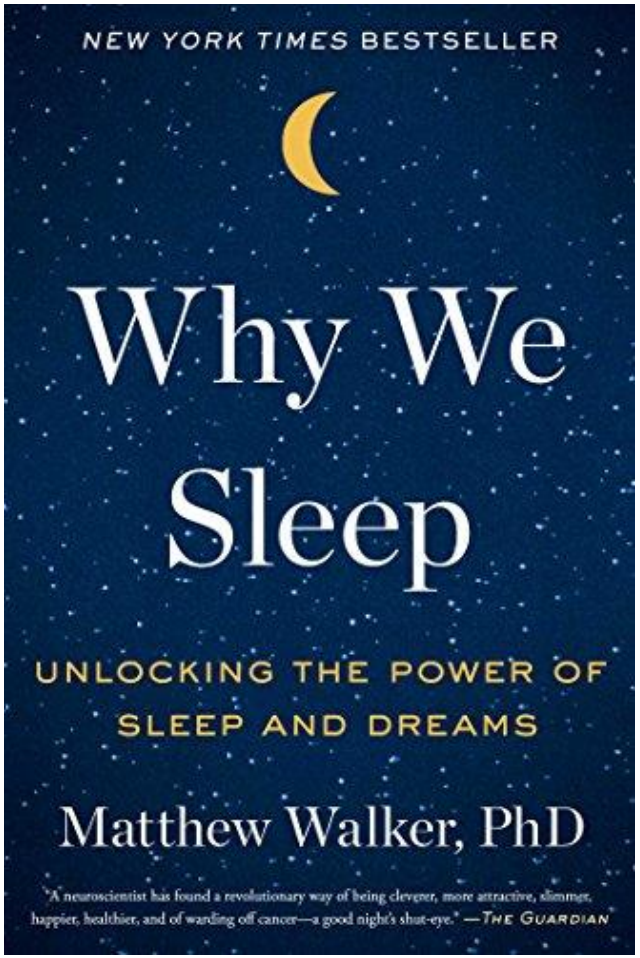
Sleep Maximizes Serotonin

"Within the brain, sleep…enriches our ability to ***learn, memorize, and make logical decisions*** *and choices… Sleep recalibrates our emotional brain circuit, allowing us to* ***navigate*** *next day* ***social*** *and* ***psychological challenges*** *with cool-headed composure."*



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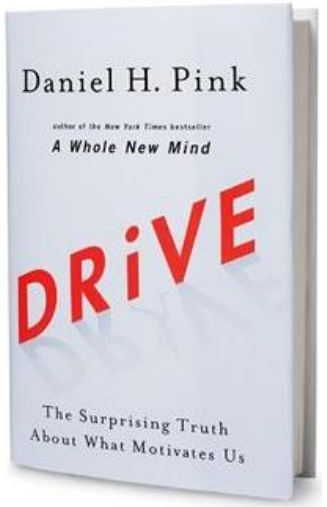
Dan Pink (Drive, 2005)



"There is a significant gap between what scientists know about how our brains work and ways organizational behaviorists will tell you our institutions operate."

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40 Countries / 49 States

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Dr. Jeff D Borden

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Dr. Jeff D Borden

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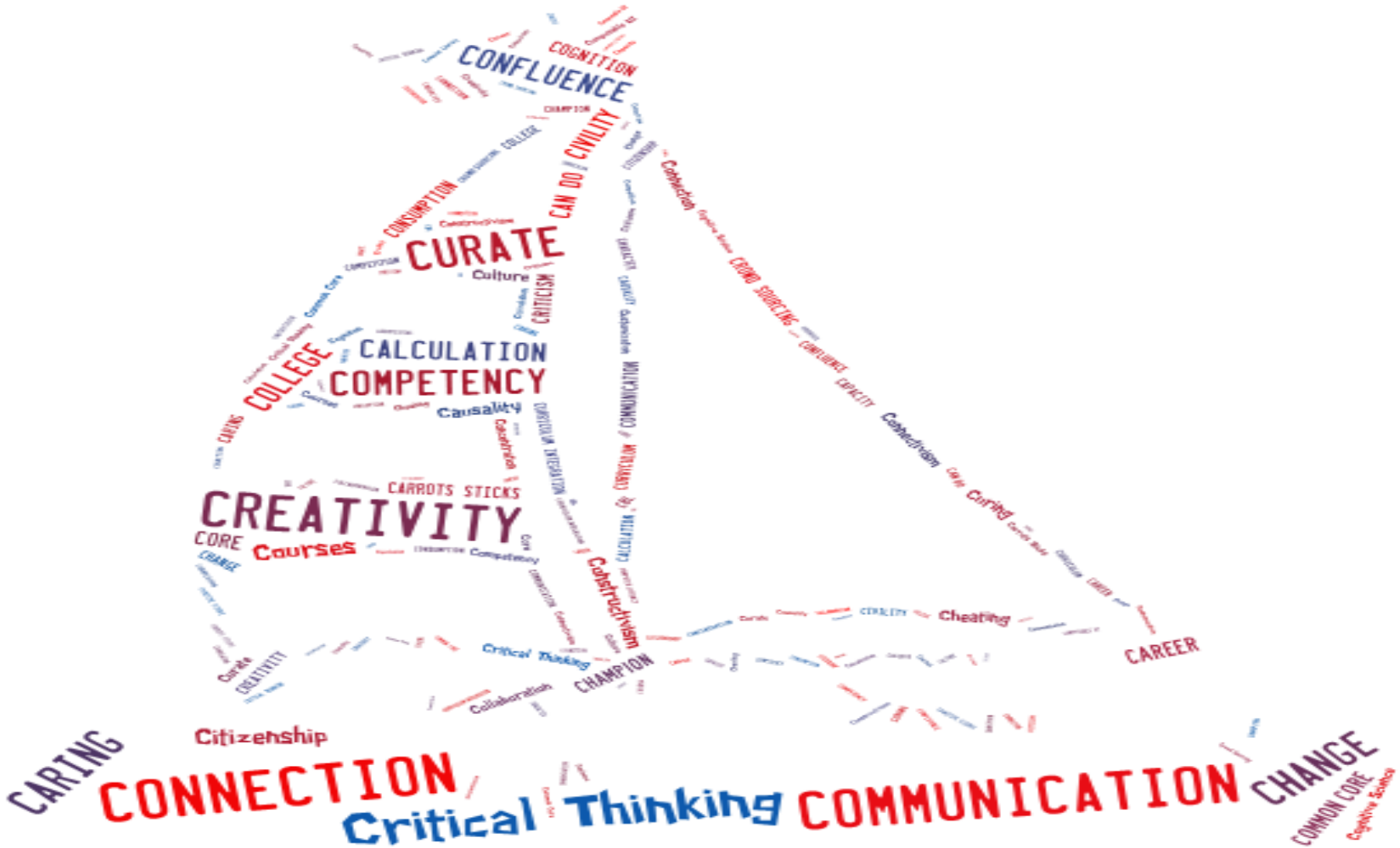
The “C’s” of Academic Innovation



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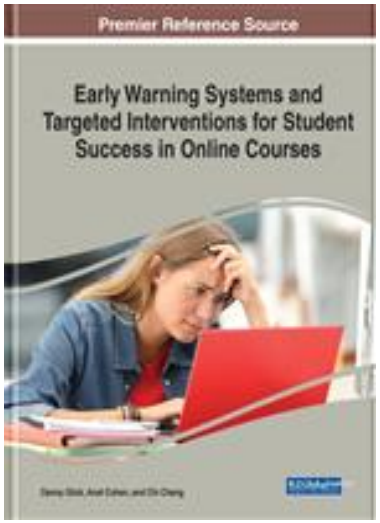
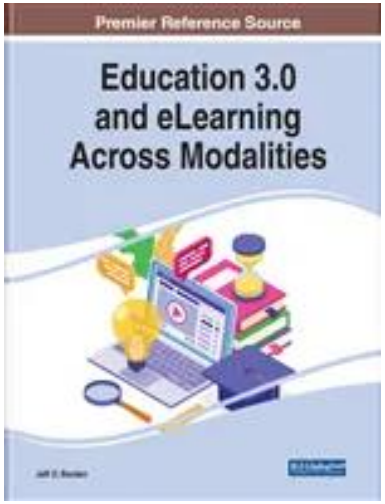
Dr. Jeff's Chapters / Books

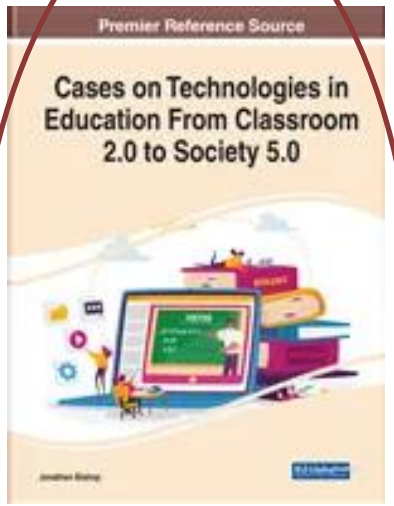
(Ch 5) **The Science and Technology of Interconnectedness**



(Ch 13) **Noncognitive Signals and Systems**: The Science and Technology of Connectedness



Anthology Editor (Preface / Ch 1) **Education 3.0**: What Is It and How Do We Achieve It?



(Ch 7) **Education 3.0**: Some Innovation Required

If interested in purchasing a book from IGI publishing, use discount code "IGI50" for 50% off- https://www.igi-global.com/gateway/book/258351?ct=-8585668644467097054 – note, as academic anthologies, authors are not compensated for book sales.

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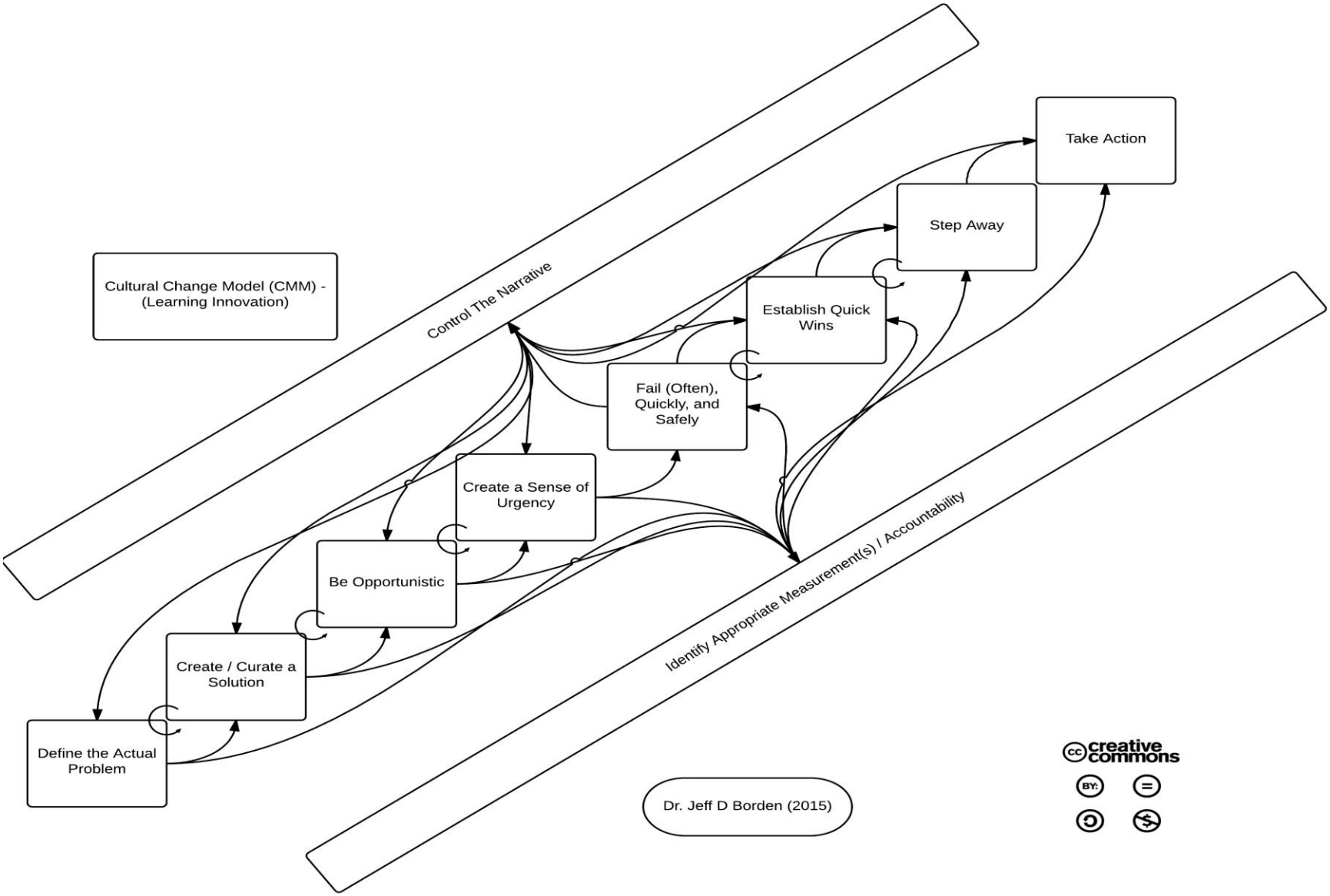
Learning Innovation Change Model Evolution



creative commons

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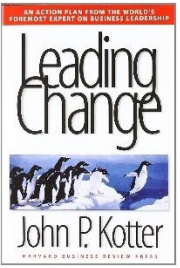
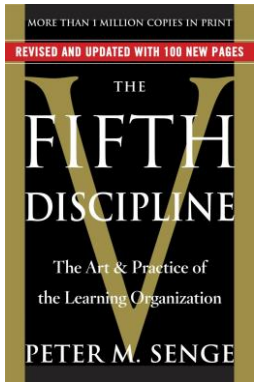
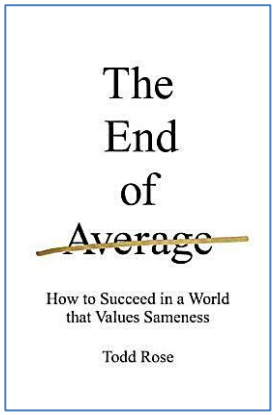
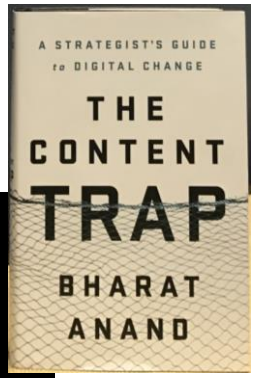
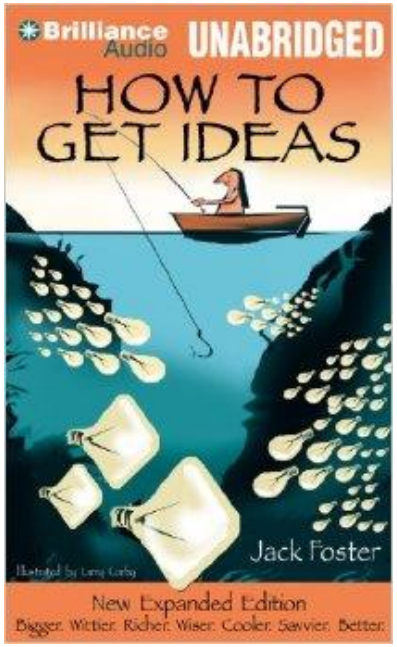
Learning Innovation Architecture

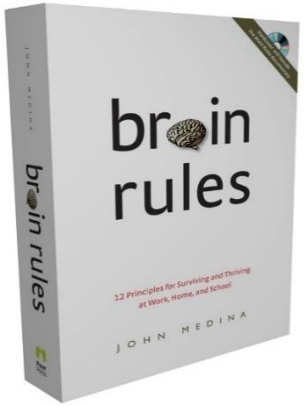


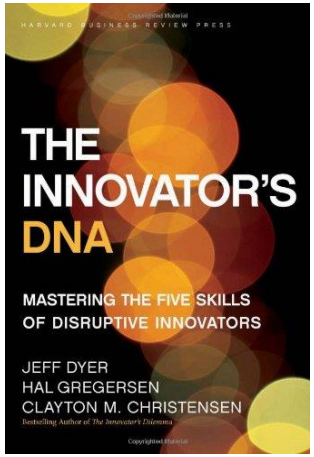


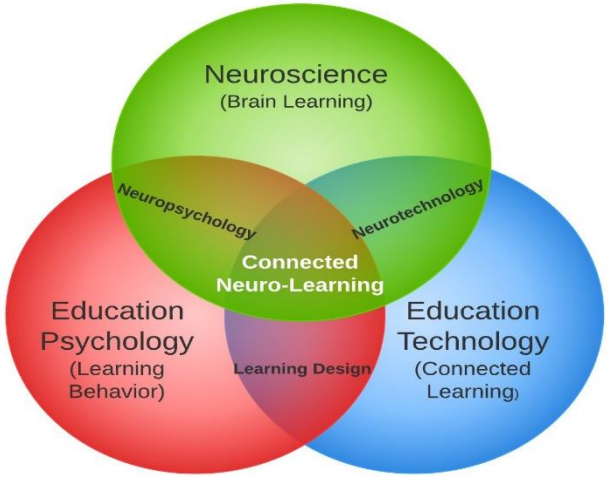












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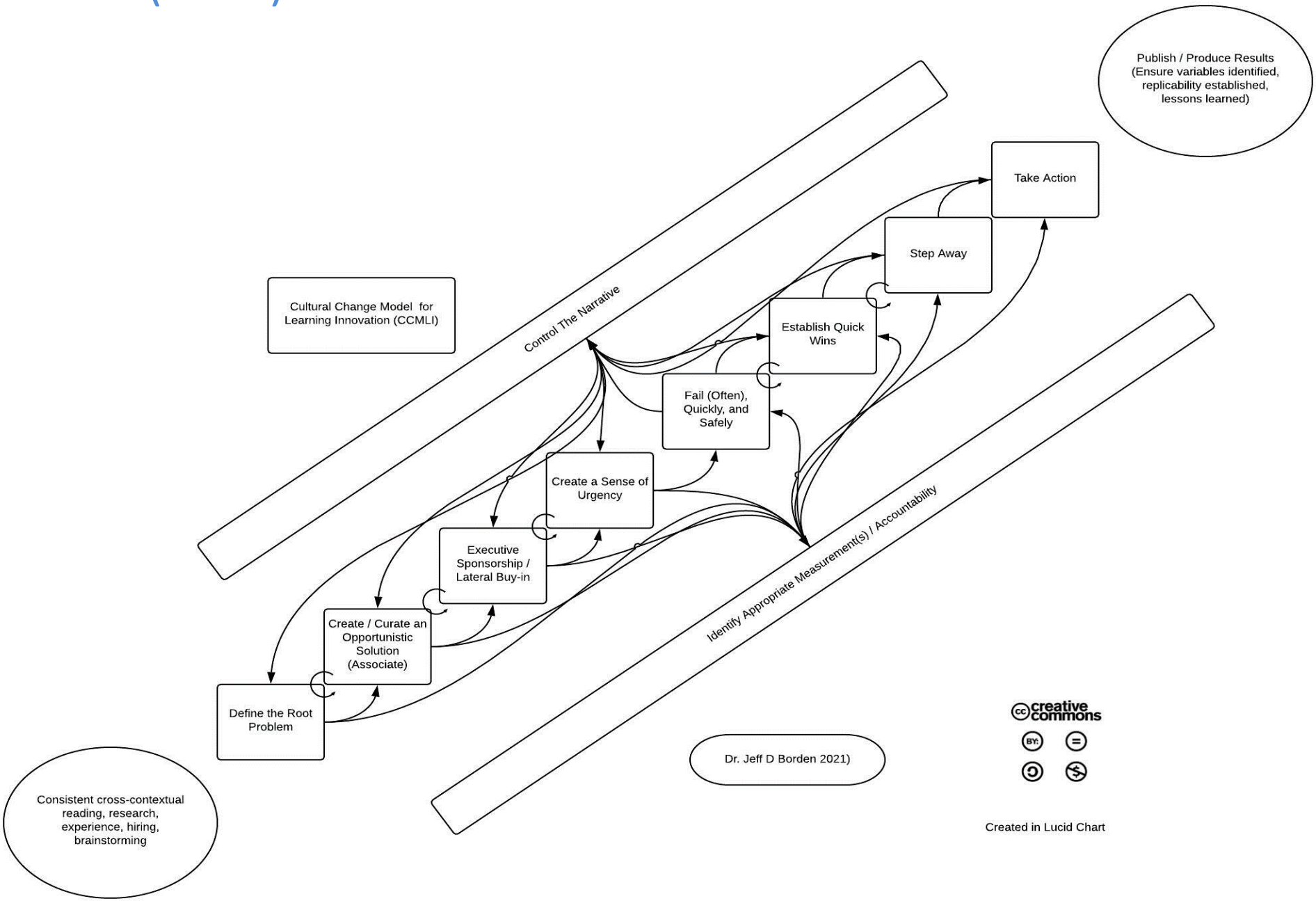
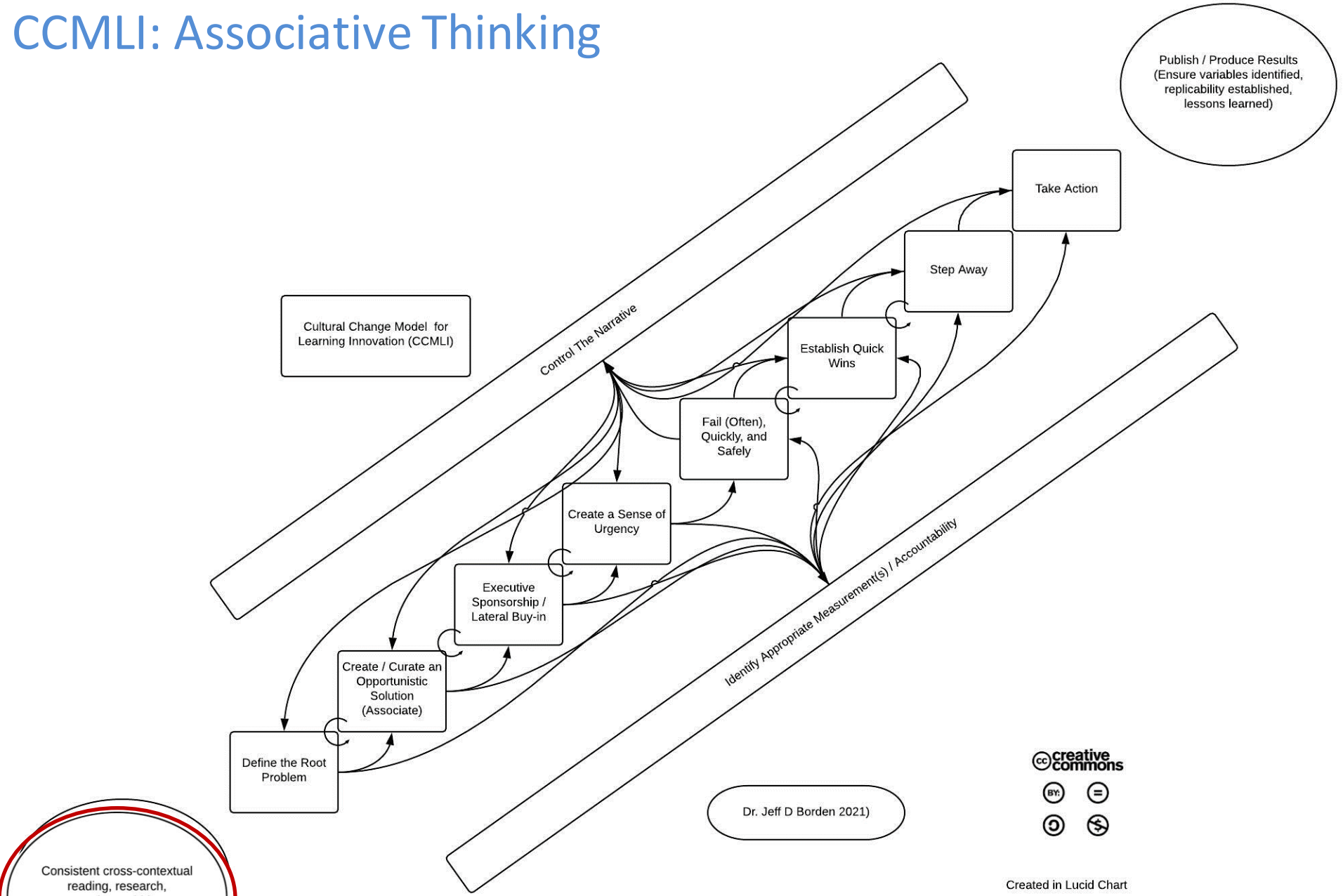
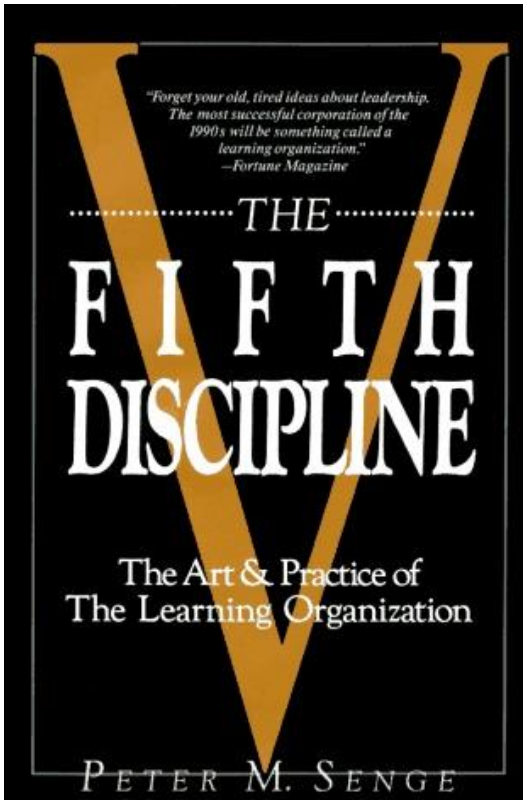
CCMLI (2021)

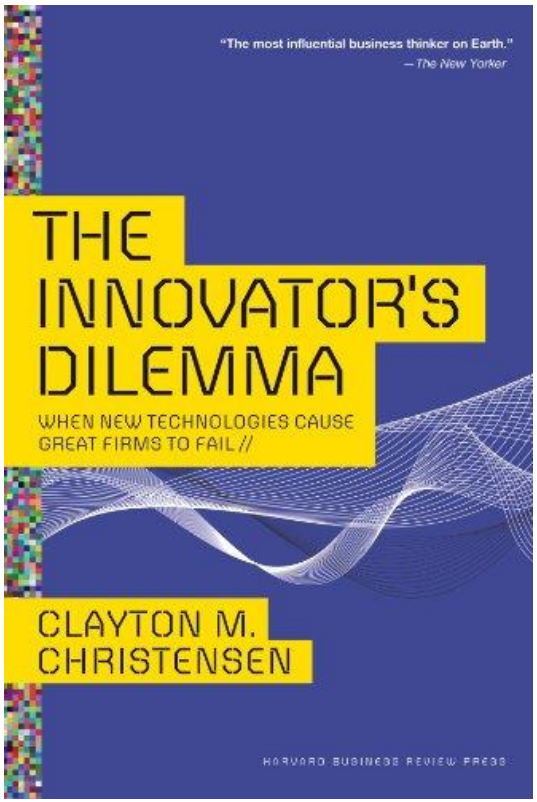

Publish / Produce Results (Ensure variables identified, replicability established, lessons learned)
Take Action
Step Away
Cultural Change Model for Learning Innovation (CCMLI)
Control The Narrative
Establish Quick Wins
Fail (Often), Quickly, and Safely
Create a Sense of Urgency
Executive Sponsorship / Lateral Buy-in
Create / Curate an Opportunistic Solution (Associate)
Define the Root Problem
Identify Appropriate Measurement(s) / Accountability
Consistent cross-contextual reading, research, experience, hiring, brainstorming
Dr. Jeff D Borden 2021)
creative commons
Created in Lucid Chart

CCMLI: Associative Thinking



Innovation = Associating (aka Medici Effect)





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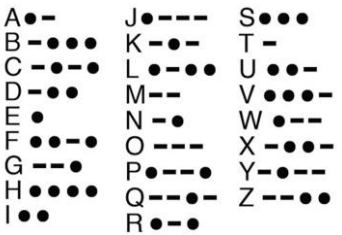
Consistent, cross-contextual reading, research, experience, hiring, brainstorming, etc.

McEwan applied fractal graphics to gold mining after attending a computer conference about open-source.

Doctors created smaller injection needles based on mosquitos.

Alexander Graham Bell made the phone's diaphragm after going to audiology school, understanding how the human ear works.

Ford created the first automobile assembly line based on one of his executive's (William Klann) work at a slaughterhouse.



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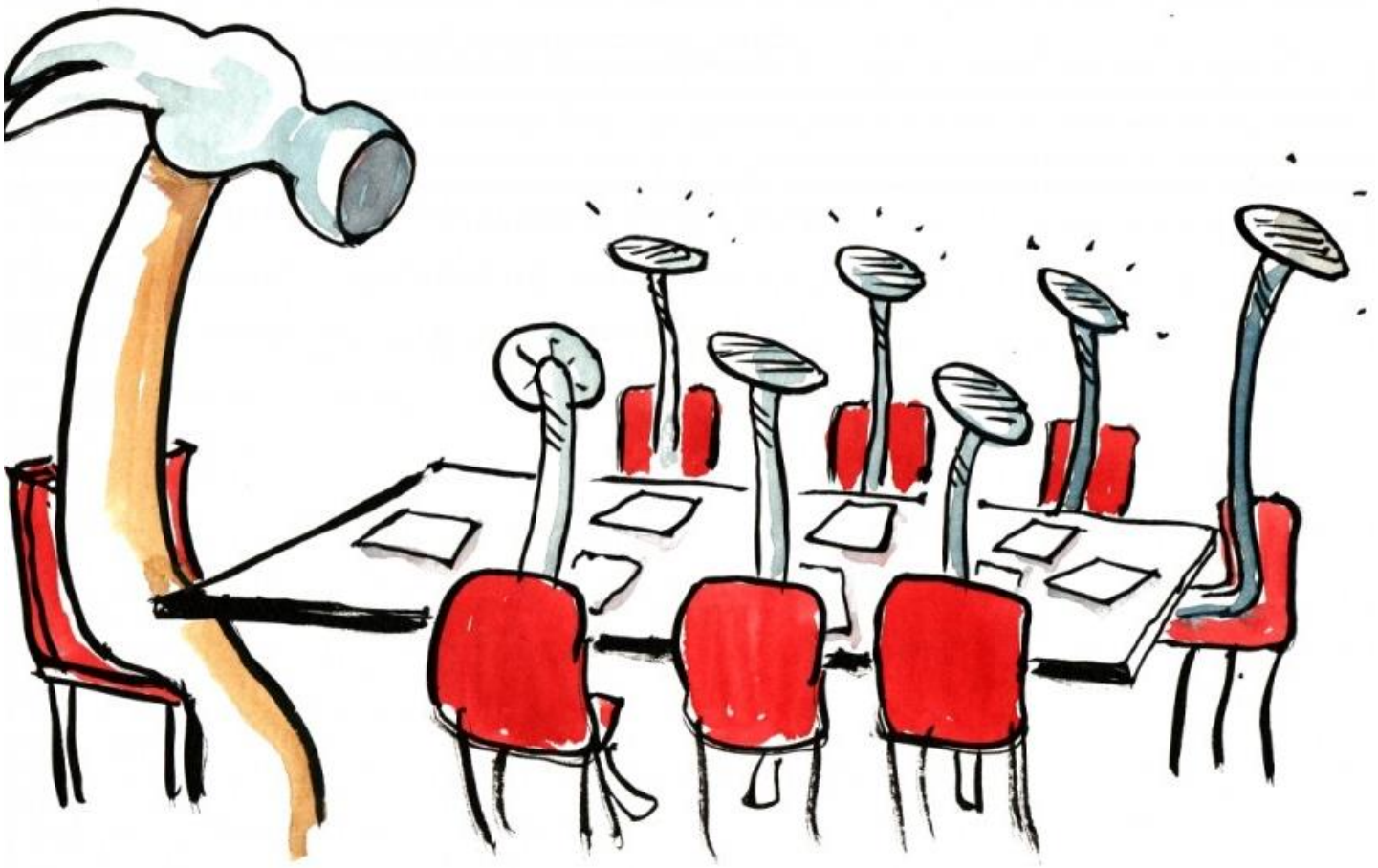
Do You Really Want Innovation?



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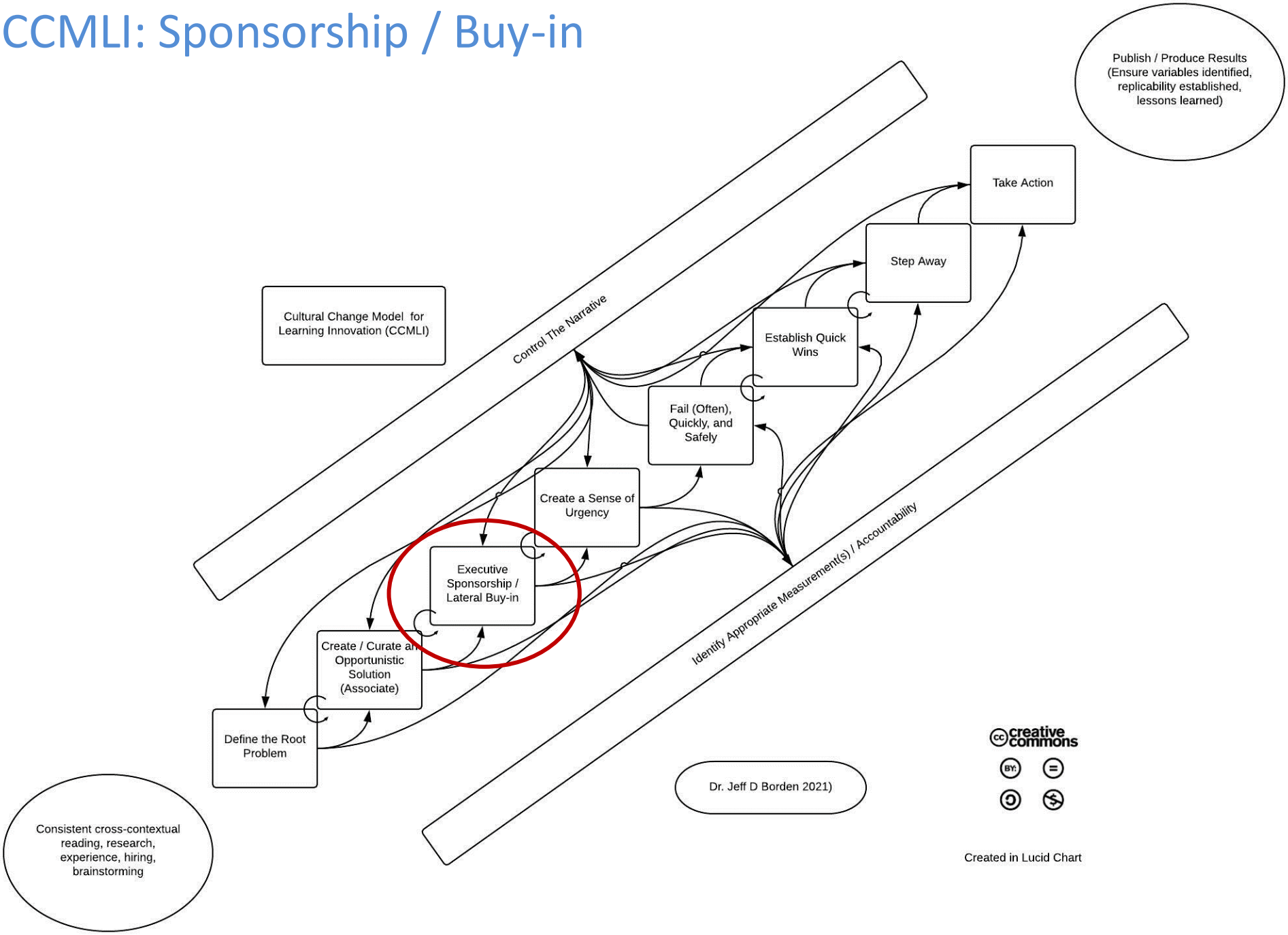
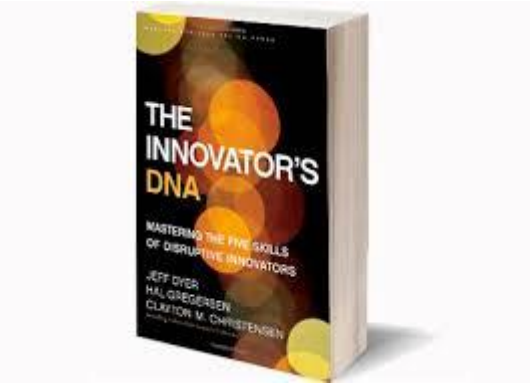
CCMLI: Sponsorship / Buy-in



Who Innovates?



"…top executives do not feel personally responsible for coming up with strategic innovations. Rather, they feel responsible for facilitating the innovation process. In stark contrast, senior executives of the most innovative organizations—a mere 15% in our study—don't delegate creative work. They do it themselves." *Dyer (et.al.), Innovator's DNA, 2011*

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Stig Leschly

Harvard innovation labs

Explore Events Ventures Our Labs

Latest News

Innovator Stig Leschly Encourages Failure at President's Challenge Launch

By Brandon J. Dixon
10/23/2015

Business

Jeff Bezos' 'shadow' most coveted job at Amazon

Most coveted job at company is adviser who follows and observes Bezos everywhere

SENIOR LECTURER OF BUSINESS ADMINISTRATION

Stig is currently a Senior Lecturer at Harvard Business School where he teaches entrepreneurship. Stig was also a lecturer on entrepreneurship at HBS from 2001-2004. Stig is a primarily a practicing entrepeneur. Click "read more" for a detailed biography.

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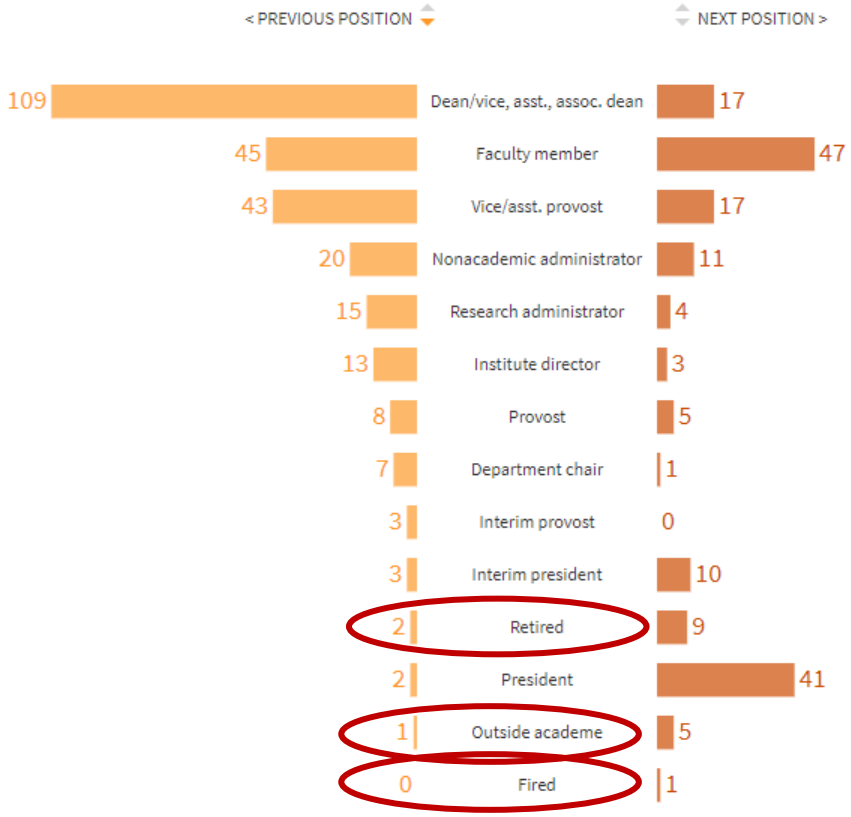
Provost & Associative Thinking



SOURCES: Higher Education Directory; *Chronicle* research and reporting

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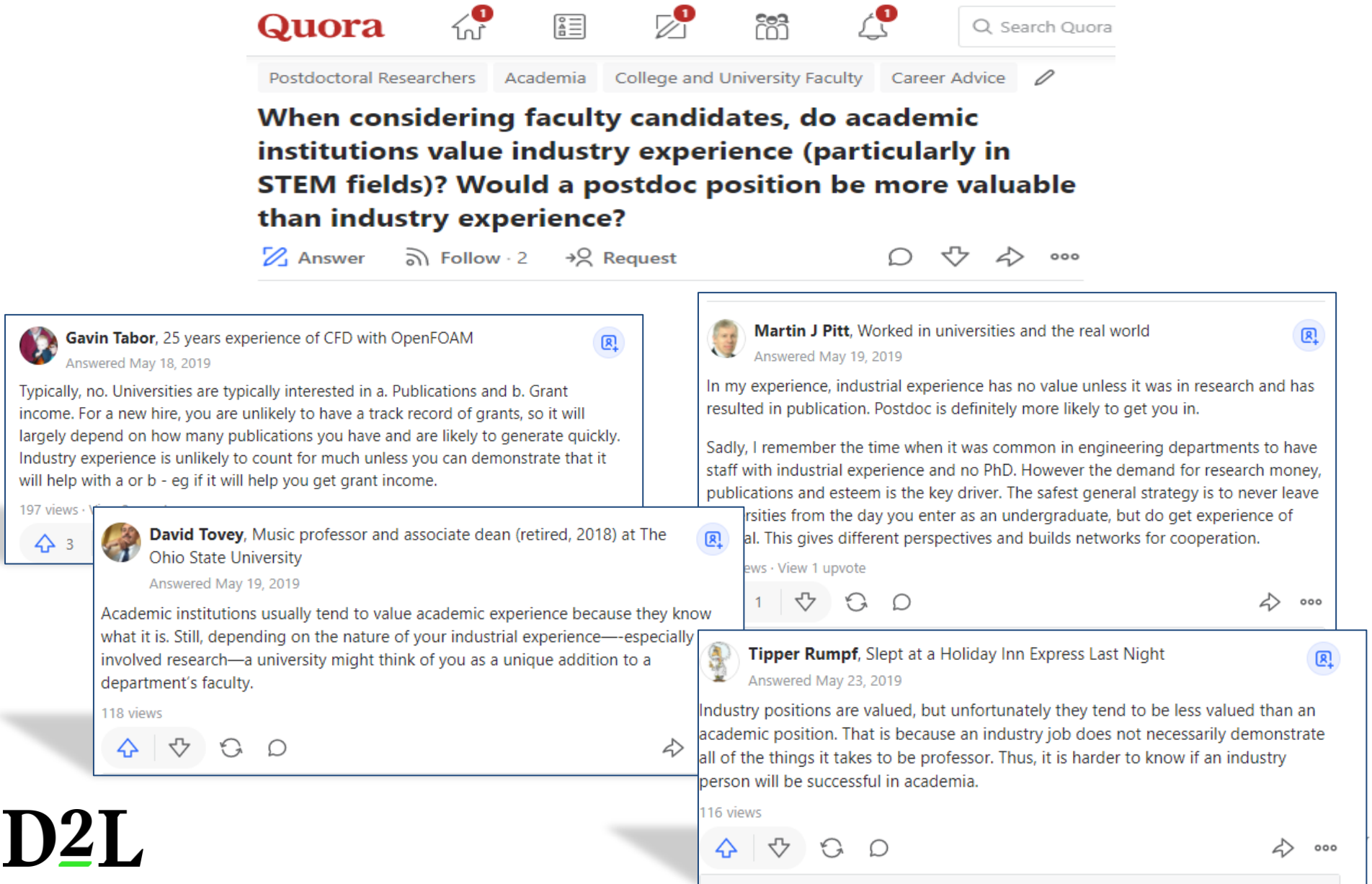
Faculty & Associative Thinking



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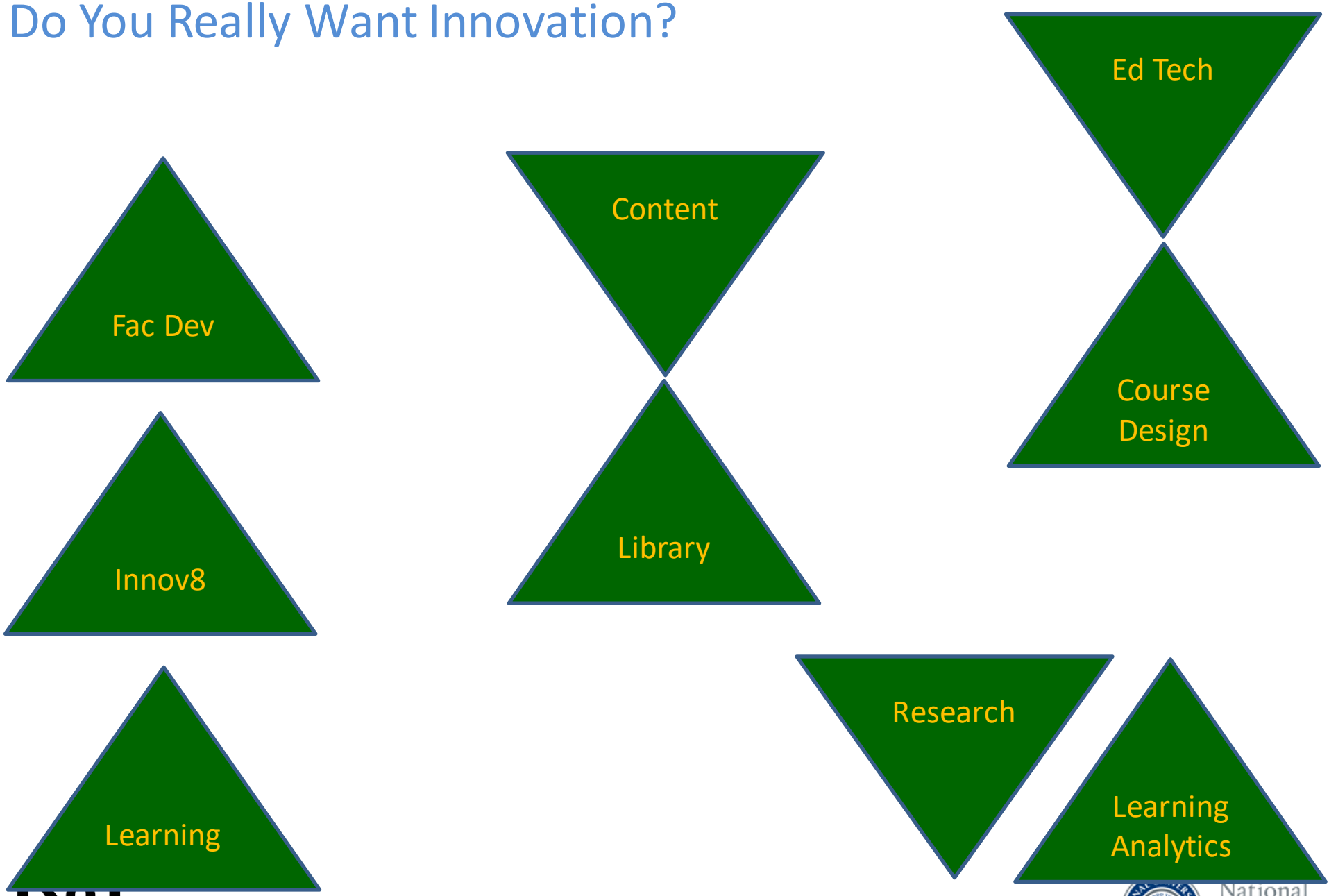
Do You Really Want Innovation?



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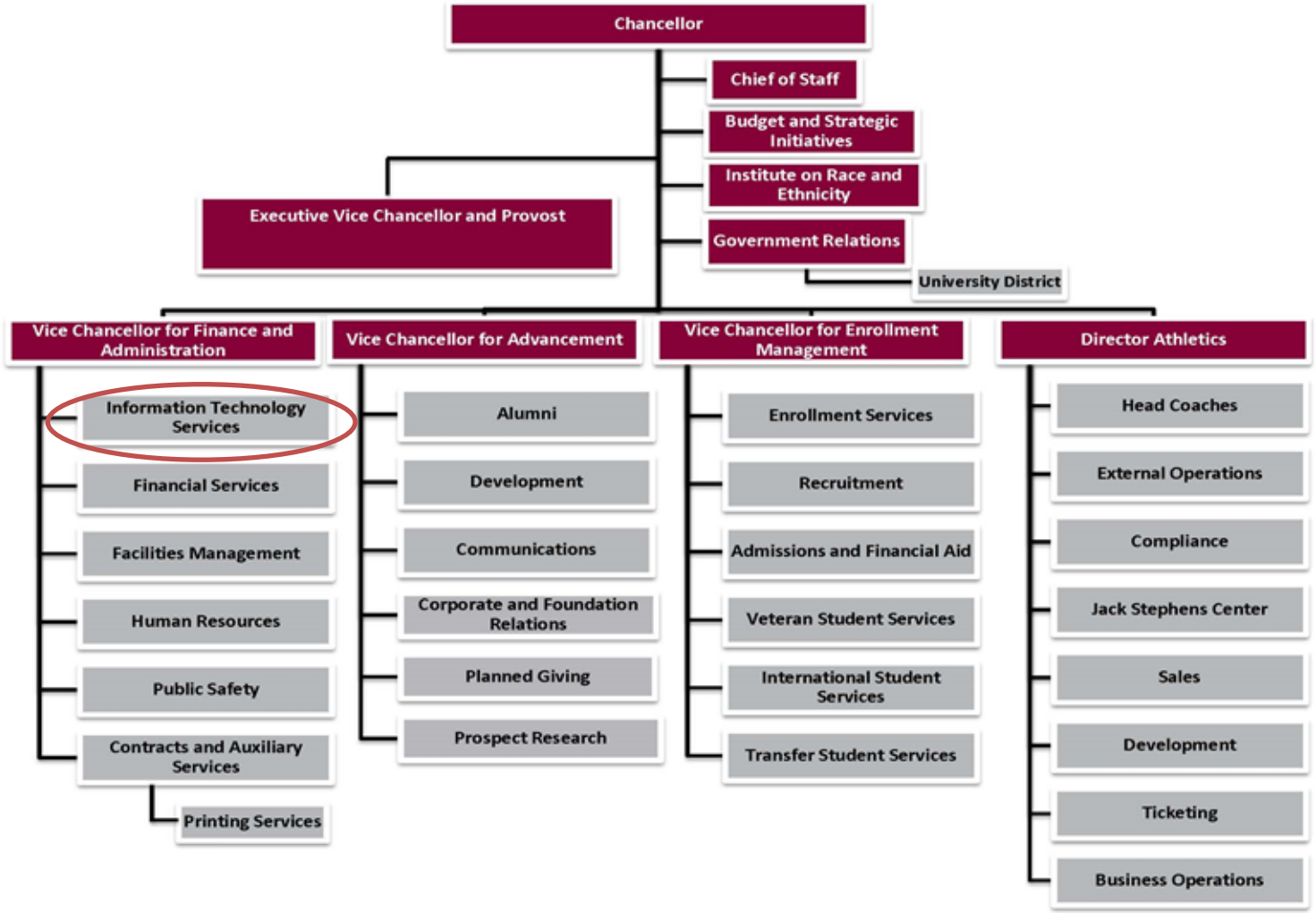
Do You REALLY Want Innovation?



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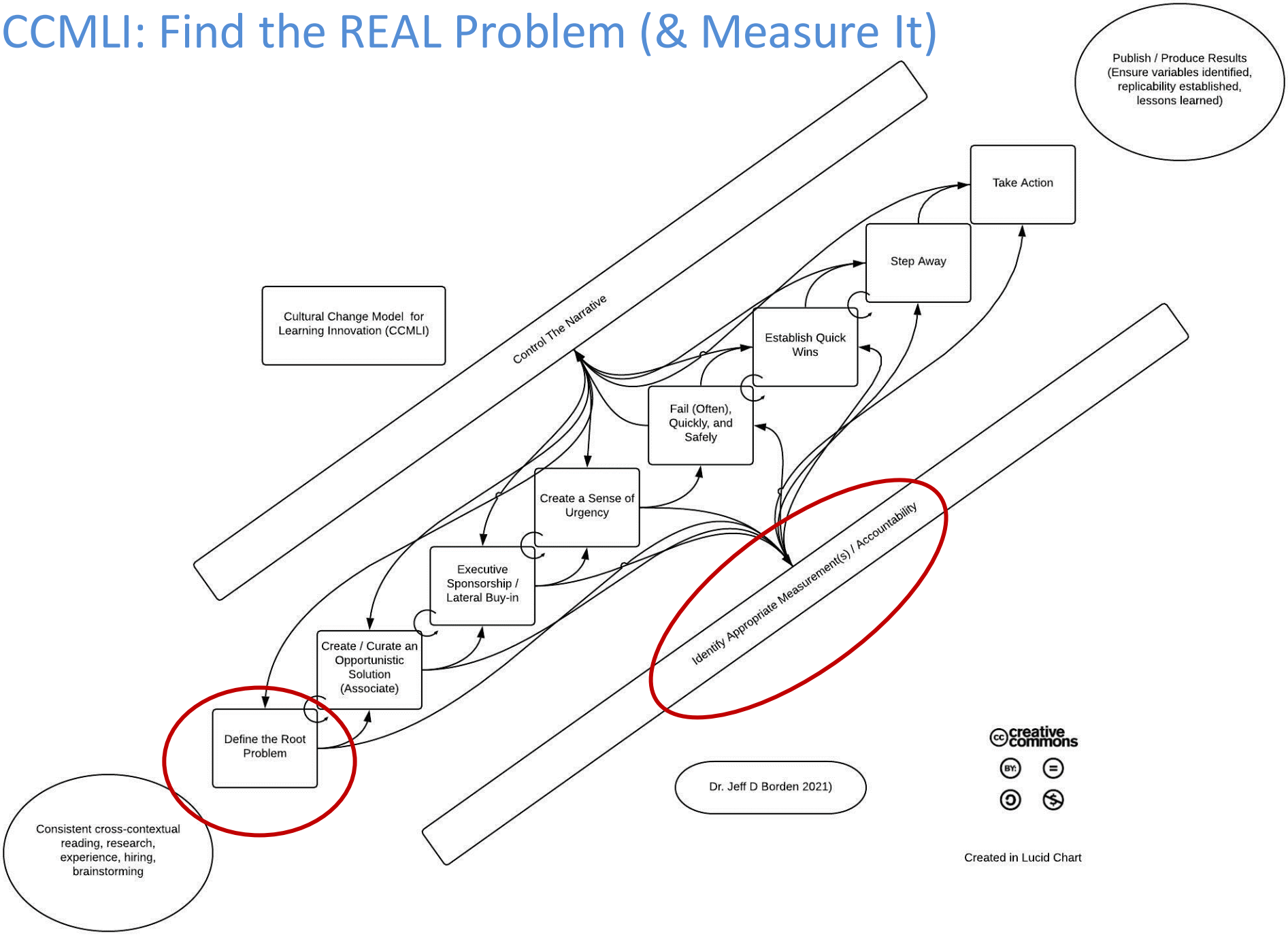
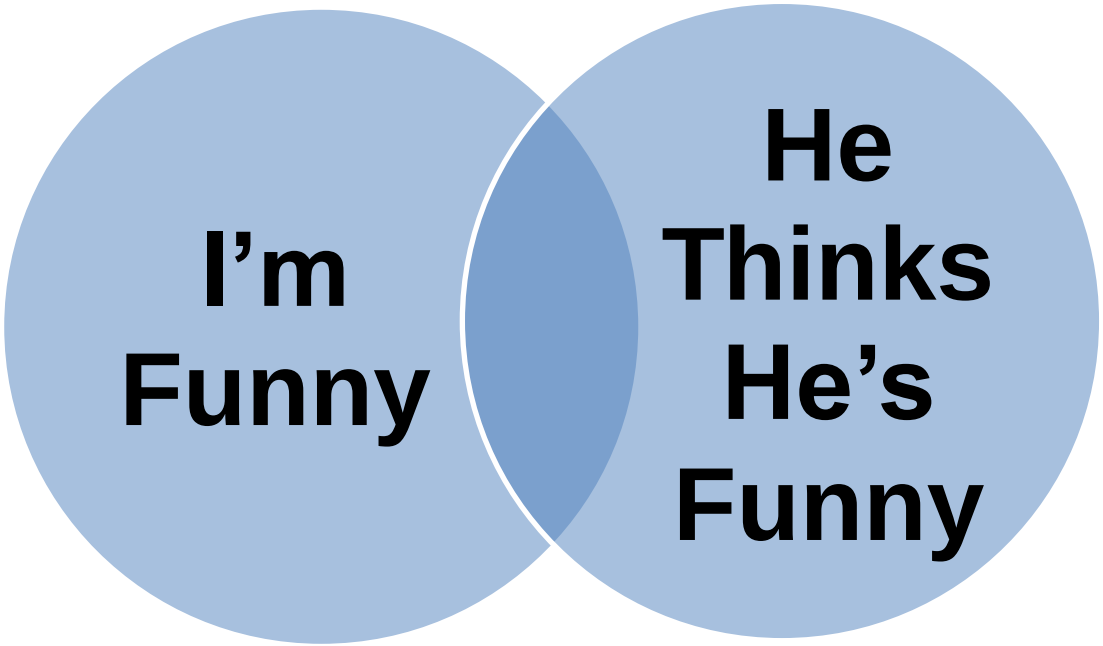
CCMLI: Find the REAL Problem (& Measure It)



Perception Determines Perspective

- Internal Perception
  - What you believe to be true.

- External Perception
  - What others believe to be true about you.
  - Ice Cream Flavor Test



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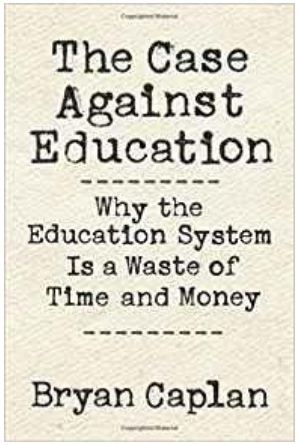
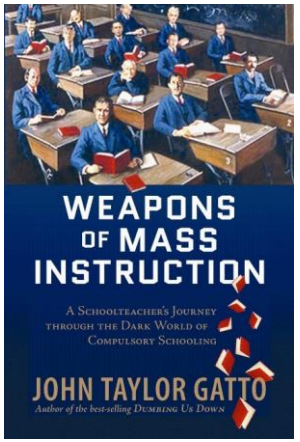
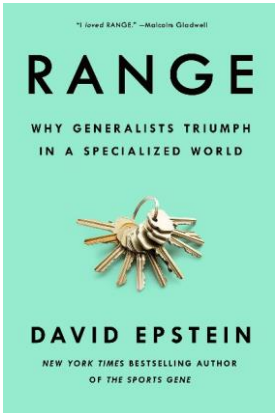
Does Learning Happen?

- Education does not measurably impact:
  - Learning
  - Creativity
  - Critical Thinking
  - Job Skills
  - Transference







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Employers Expect New Job Skills

1950-2005

- Write effectively
- Speak effectively
- Become efficient
- Be an expert
- Loyalty
- Work ethic

2005 -

- Embrace change
- Lead
- Autonomy
- Collaborate
- Curate / Focus
- Critical Thinking
- Innovative
  - Jacob Morgan: "The Future of Work" (2014)

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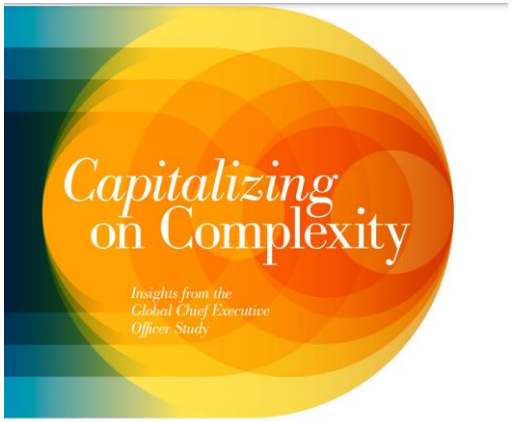
IBM 2010 Global CEO Survey

- *"…more than rigor, management discipline, integrity, or even vision – navigating an increasingly complex world will require innovation and creativity."*
- *80% of employers seeking creative employees cannot find them to hire…*

- 1500 CEO's from 60 Countries



Change Is Exciting, Transformative, Cool

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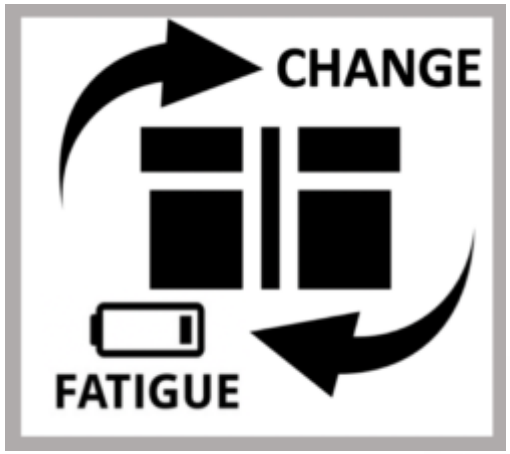
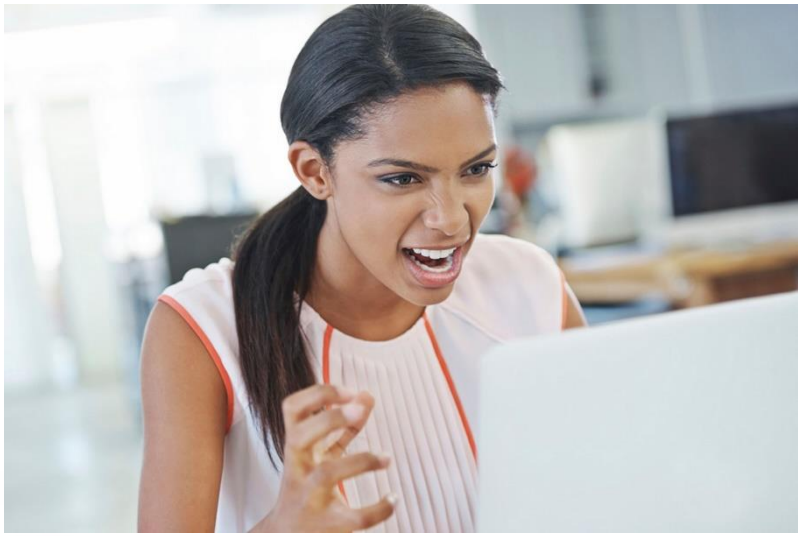
Change Is Awful





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Dana C, Soffe B, Shipley J, Licari F, Larsen R, Plummer K, Bybee S, Jensen J
MedEdPublish
https://doi.org/10.15694/mep.2021.000089.1

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Why do faculty resist change?

Clark Dana[1], Burke Soffe[1], Jeff Shipley[2], Frank Licari[1], Ross Larsen[2], Kenneth Plummer[2], Seth Bybee[2], Jamie Jensen[2]

Corresponding author: Dr. Jamie Jensen jamie.jensen@byu.edu
Institution: 1. Roseman University of Health Sciences, 2. Brigham Young University
Categories: Teachers/Trainers (including Faculty Development), Teaching and Learning, Research in Health Professions Education, Undergraduate/Graduate

Received: 17/09/2020
Published: 08/04/2021

Abstract

Background: Much of what an educator needs to know to be successful is invisible to lay observers, leading to the assumption that teaching requires little formal study.

Aims: This study is based on an 8- month faculty development workshop on student-centered teaching. Faculty members who made no noticeable changes in their teaching practices were compared to faculty who made noticeable and significant changes.

Method: Using a qualitative narrative approach based on a structured interview we aimed to categorize the features of changers and resisters.

Results: Faculty resisters did not see any need for changes in the way we teach, did not believe student-centered teaching to be more effective, could not appropriately define student-centered teaching, were motivated by extrinsic factors, and felt unvalued. Conversely, faculty changers were excited for changes and saw the need for change and for student-centered teaching, were intrinsically motivated, and felt valued as faculty members.

Conclusion: We hypothesize that a main reason for resistance is the status quo bias. Implications for faculty development are discussed.

Keywords: Dental education; faculty change; professional development; resistance

Introduction

Efforts to improve teaching are not unique to dental education. A systematic review examining teaching effectiveness in health professions education determined that faculty members in general lack formal training in educational methodology and pedagogy. The review emphasized how faculty development is needed (Steinert *et al.*, 2006).

Furthermore, cognitive psychologists aptly summarize a major critique of higher education: "It would be difficult to

Covid: 1 / Faculty: 0

'Panic-gogy': Teaching Online Classes During The Coronavirus Pandemic

March 19, 2020 · 9:00 AM ET

ANYA KAMENETZ

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HIGHER EDUCATION

Pandemic May (Finally) Push Online Education Into Teacher Prep Programs

By Rebecca Koenig May 28, 2020

Please answer yes or no to the following questions: **Do you think that your teachers/ professors know how to teach effectively online?**

Around half (51%) of students polled across all 21 countries during the COVID pandemic say their teachers/ professors know how to teach effectively online, while 37% say they do not.

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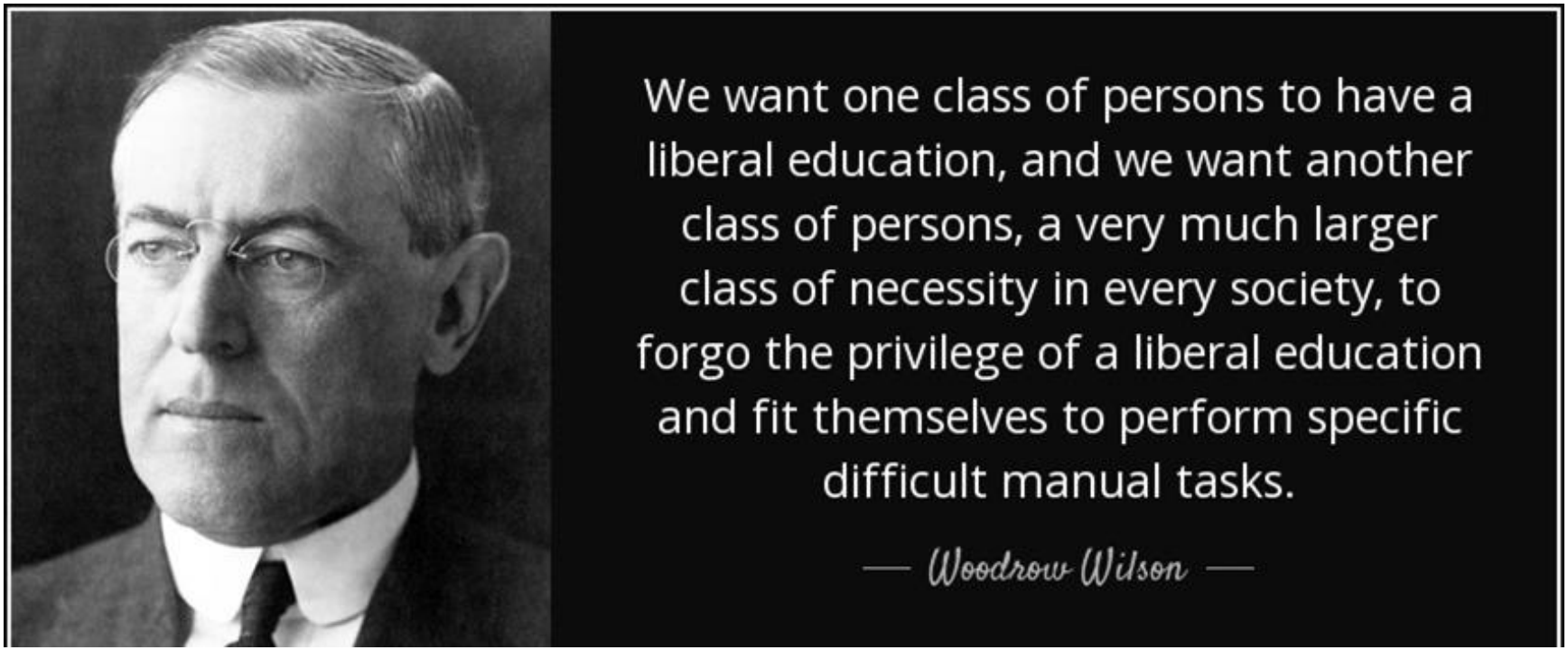
Do You REALLY Want Innovation?



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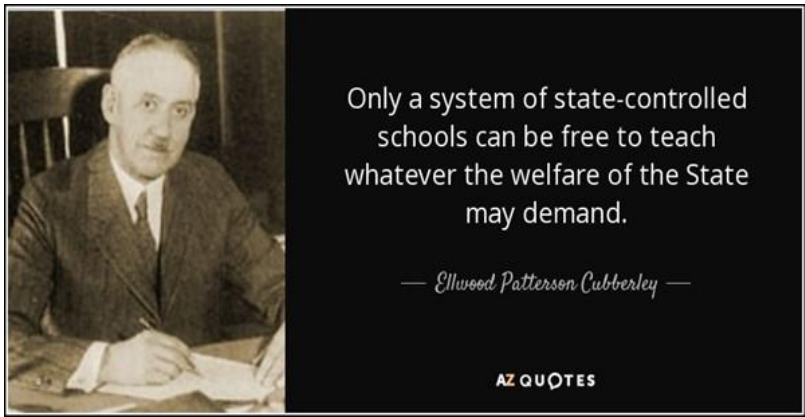
Social Engineering

"All focus must remain at the front for the teacher, the chalkboard, and the information, with students in rows, quietly reading books, and absorbing information, only speaking when spoken to and only taking breaks when bells ring, promoting isolation and fear will create the working class America needs." Ellwood P Cubberly - 1900



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Dr John Medina

"As I was writing Brain Rules, it hit me [that] if you wanted to design a learning environment that was directly opposed to what the brain is naturally good at doing, you would design something like a classroom."

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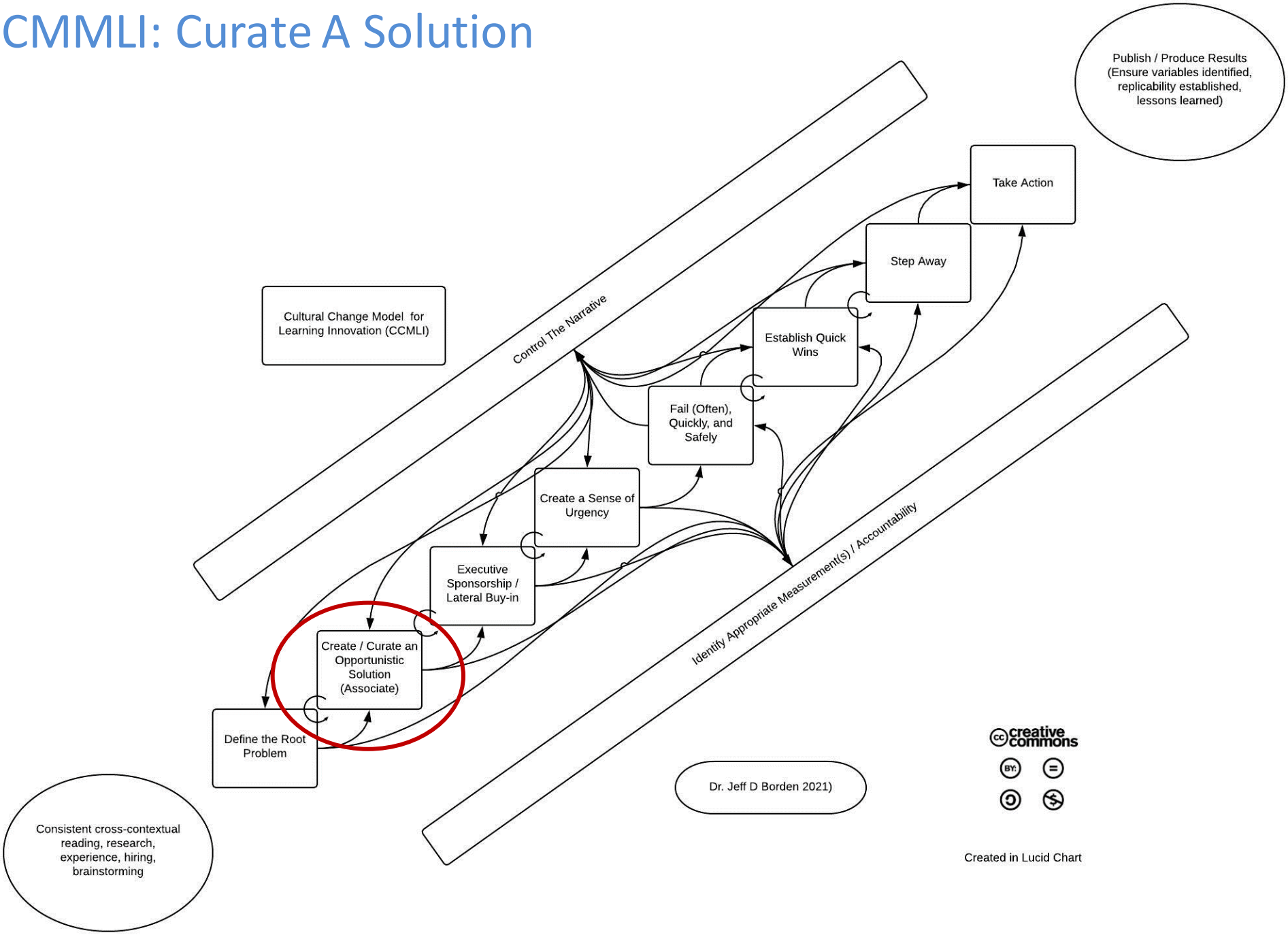
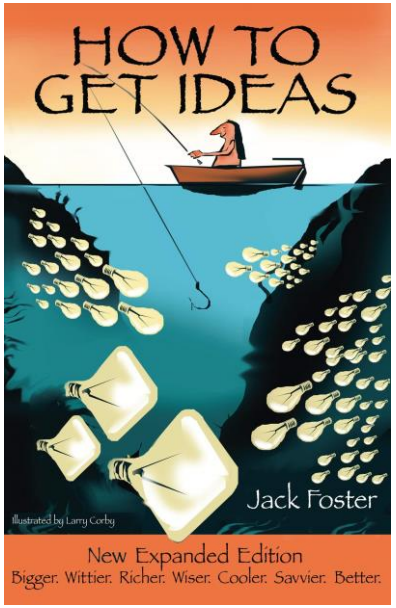
CMMLI: Curate A Solution



How do you get a GREAT idea?

- Answer: Get a lot of ideas…
- “Work creates work, effort creates effort, and ideas create more ideas”



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WW_D?

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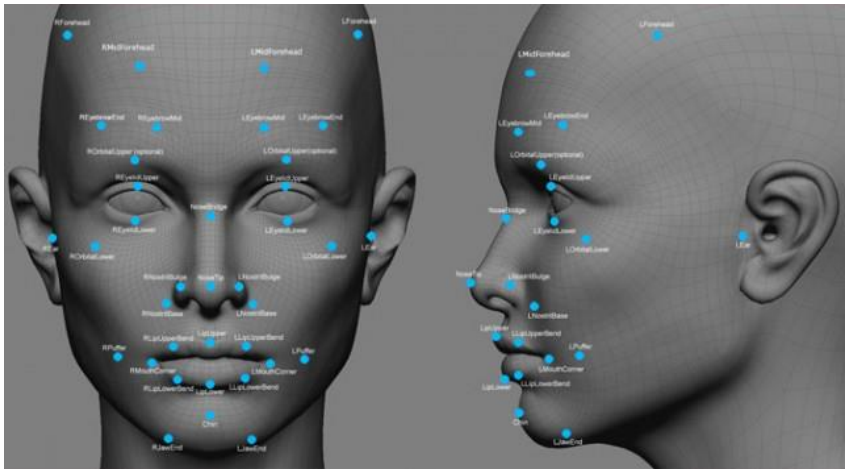
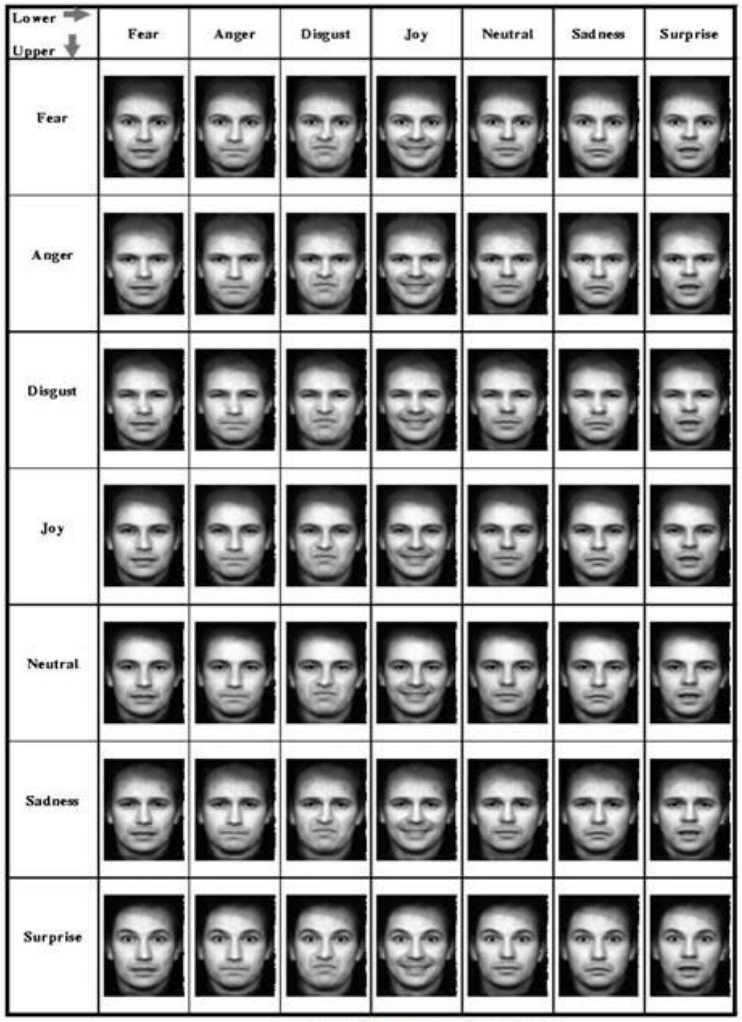
Can We Measure Engagement?





MICRO-EXPRESSIONS

MICRO-EXPRESSIONS ARE INVOLUNTARY 'CUES' THAT LAST UNDER A SECOND, BUT 'LEAKAGE' REVEALS THE TRUE FEELINGS OF A SUBJECT AND CAN BE USED TO DETECT POSSIBLE DECEIT OR THE CONCELMENT OF INTENTION(S).

MICRO-EXPRESSIONS ARE UNCONSCIOUS EXPRESSIONS THAT SURFACE AS THE LIMBIC PART OF OUR BRAINS SORT, GATHER, AND ASSESS INFORNMATION.

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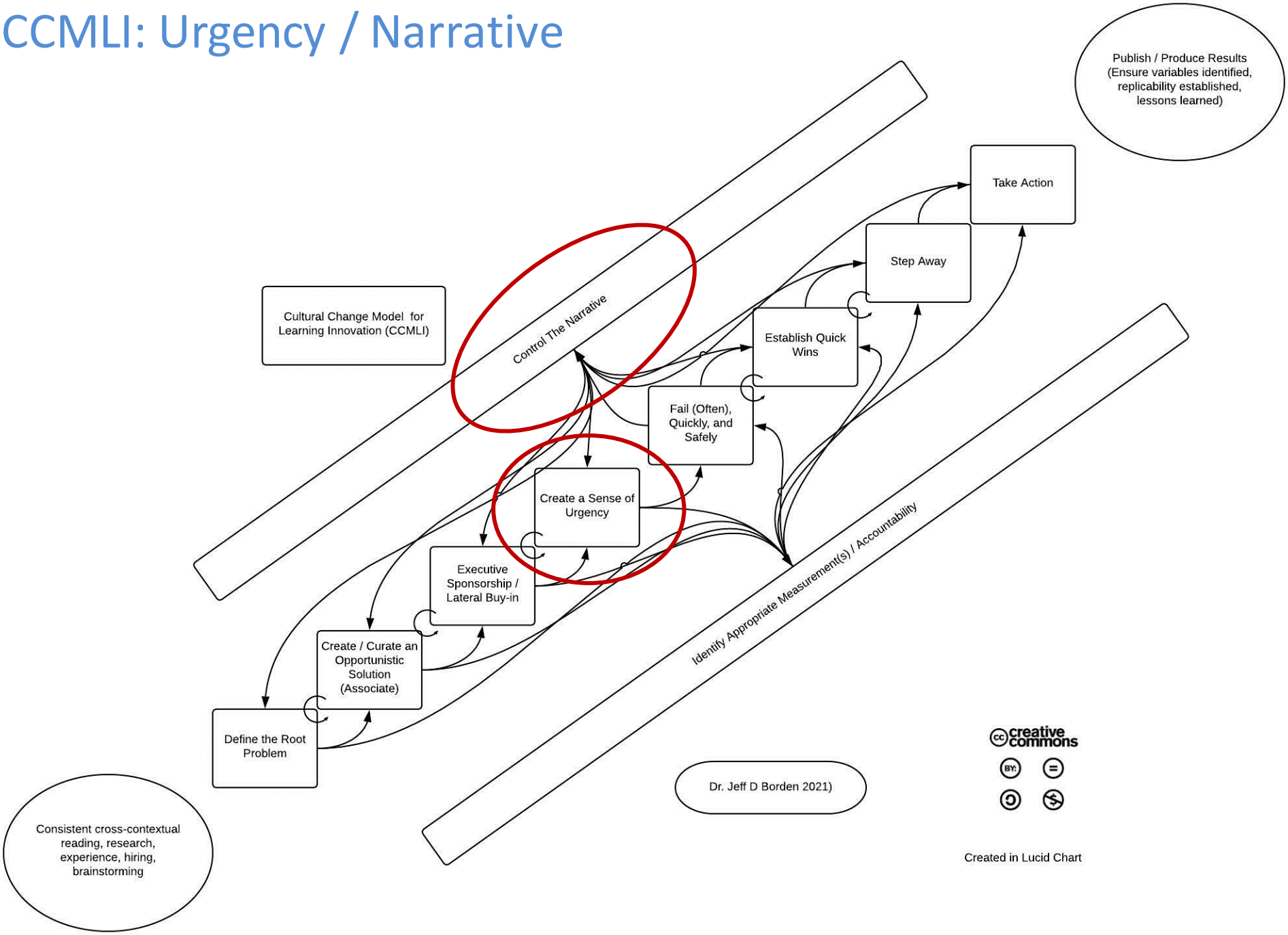
CCMLI: Urgency / Narrative



Nordstrom and the Returned Tire

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e-vangelists vs C.A.V.E. People

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CAVE #1: Non-System Thinkers

- Student-centric (No hacks or workarounds)
- Mobile-centric (Device based work)
- Integration-centric (No fire extinguishers)
- Data-centric (No black holes)
- Connection-centric (No silos)

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CAVE #2: You Can't See Me

Duck & Cover Education

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Motivate: Others Are Disrupting

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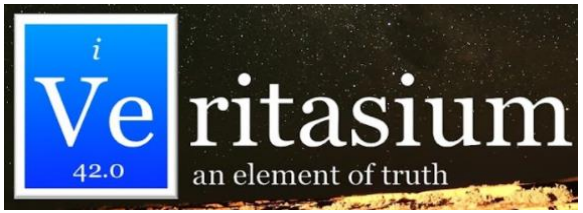
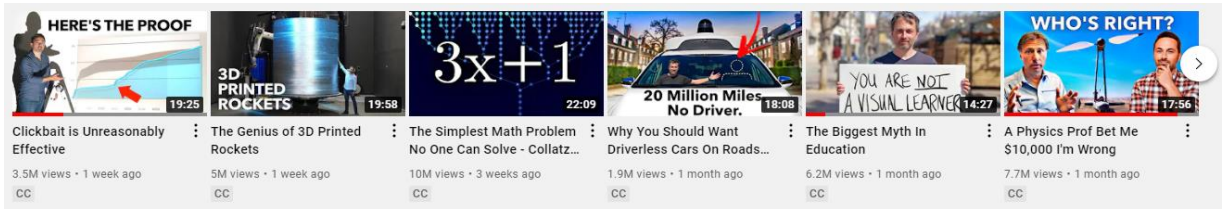
Motivate: High Quality Science / Math





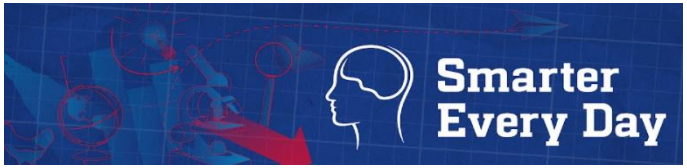
Dan Meyer on Real-World Math

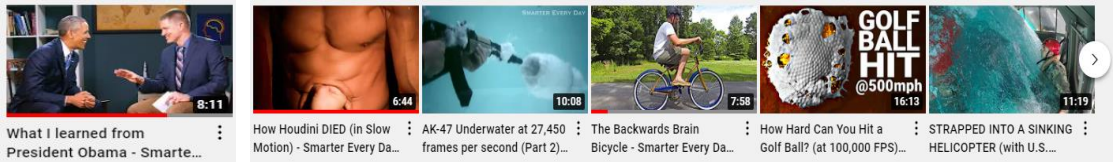
144K views • 10 years ago

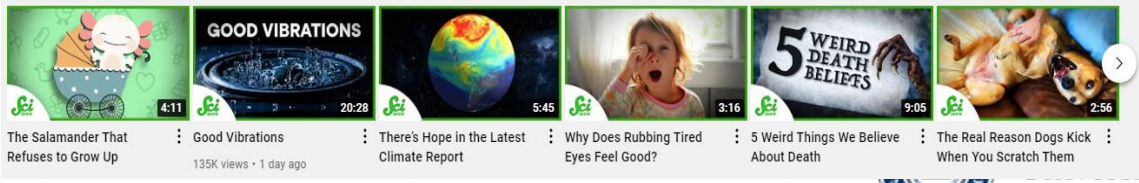
Education Week

Math teacher Dan Meyer explains how presenting real-life scenarios through photos and videos makes math problems ...

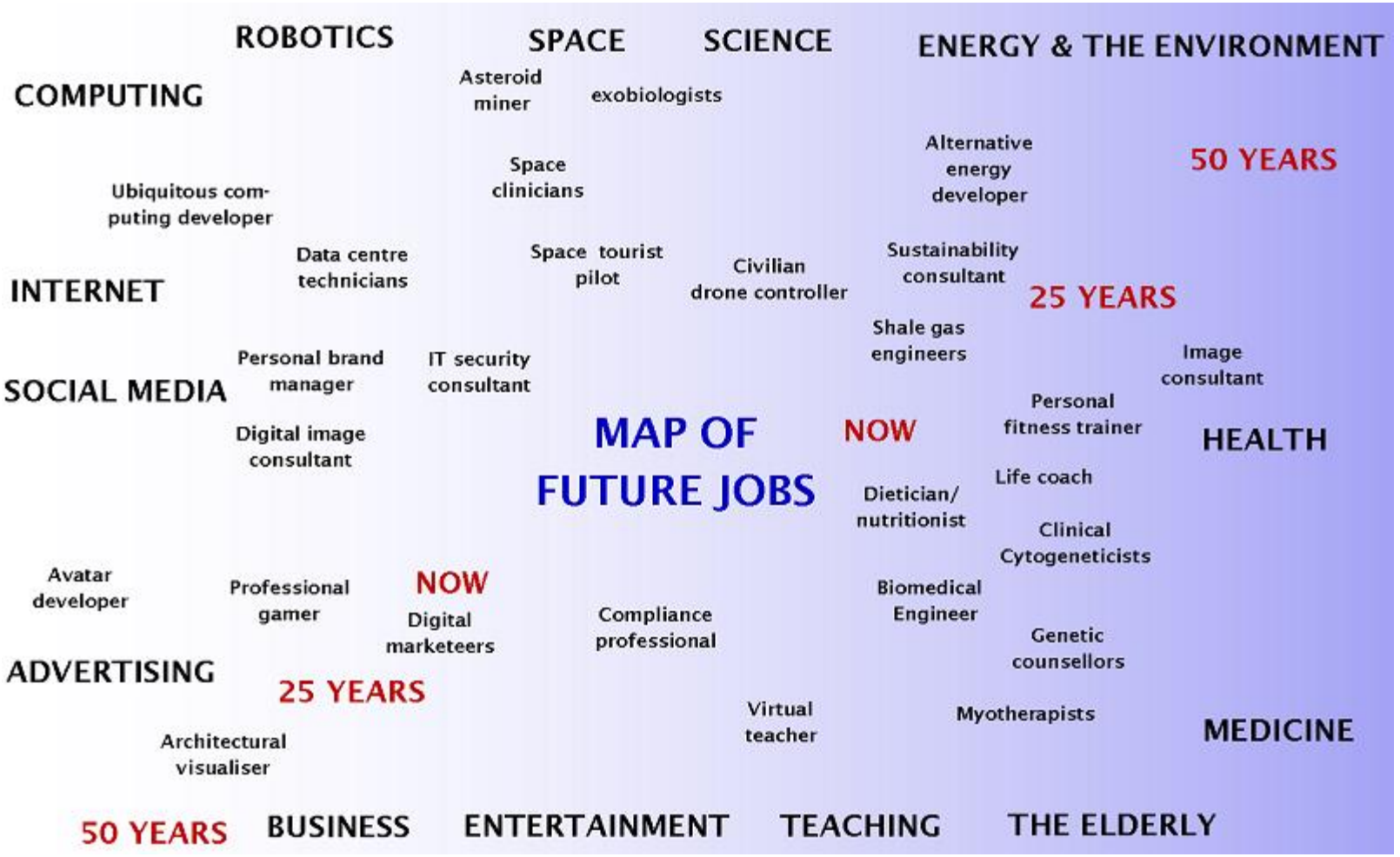
CC







Motivate: The Future



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Motivate: The Future Is Here

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Motivate: Make People Care

ALTERNATIVE REALITY LEARNING EDUCATION

ORLA

ALTERNATIVE REALITY LEARNING EDUCATION: MOCK-TRIALS & C
GAMES FOR POLITICAL SCIENCES AT SAINT LEO UNIVERSITY, 2016-2018

DIGITAL WHITEBOARDS: A TECHNOLOGY TO FOSTER STUDENT ENGAGEMENT

M. Campbell, R. Lucio, M. Detres
Saint Leo University (UNITED STATES)

Abstract

This qualitative study explored the role that technology plays in promoting student engagement. In the evolving space of online education in Social Work, it is imperative that educators find effective strategies to promote student engagement. Digital whiteboards have become a popular and unique tool to gather data, share information and promote interactive discussion and dialogue. This study: 1) described the application of a digital whiteboard to an assignment, 2) identified lessons learned about the application of new technology in the virtual classroom, 3) provided a thematic qualitative analysis of findings from a group of graduate students regarding the impact technology had on their learning and their sense of engagement.

Keywords: Engagement, technology, world cafe, virtual.

ICELW 2016 June 15th-17th, New York, NY, USA

Creating a Culture of Learning Innovatic

Michael Nastanski[1] and Jeff D. Borden[1]
[1] Saint Leo University / Academic Affairs, Saint Leo, FL. USA

EXPLORING METL: A COLLABORATIVE APPROACH TO EDUCATION

J. Prince
Saint Leo University (UNITED STATES)

Background:
In fall semester 2015, six faculty members at Saint Leo University began pilot-testing MeTL, software developed by Monash University of Australia. MeTL offers a variety of tools for interaction between instructor and students, as well as peer-to-peer features. The software includes a whiteboard space and the ability to import PowerPoint slides, and graphics—all of which can be written on with the tablet's pen or by typing. MeTL was housed on the university's server allowing instructors and students to (re)visit course materials at will.

THE FASEB JOURNAL
The Journal of the Federation of American Societies for Experimental Biology

Biochemistry and Molecular Biology | Free Access

Using an Alternate Reality Learning Experience (ARLE
Molecular Biology Techniques and Concepts in a Gen
Laboratory

Cheryl L. Clauson-Kozina, Jeff D. Borden, Steve

First published: 03 October 2018 | https://dc

Original Articles

Can a digital whiteboard foster student engagement?

Michael Campbell, Maridelys Detres & Robert Lucio

Pages 735-752 | Received 04 Mar 2018, Accepted 25 Nov 2018, Published online: 22 Jan 2019

Download citation https://doi.org/10.1080/02615479.2018.1556631 Check for updates

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System

Do You Really Want Innovation?

Innovation leading to transformation ≠ Technology

Innovation leading to transformation = Change Management

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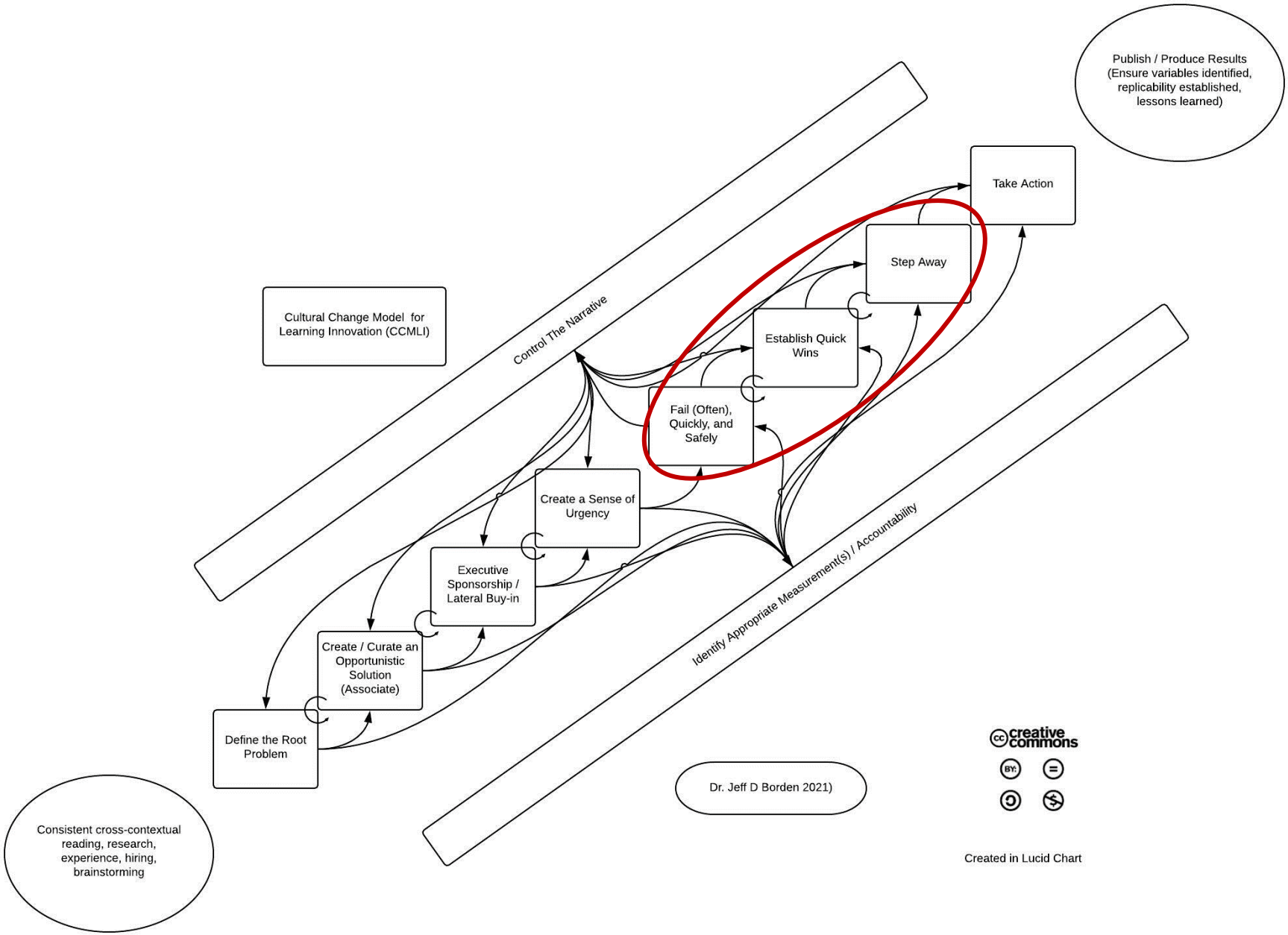

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Dr. George Siemens

"I wonder when it will become illegal to teach by lecture. No longer worthy of the placebo effect in experiments, the mounting evidence is so clear that active learning strategies are better in every measurable way, I wonder when Do-No-Harm will be invoked in the classroom?" (2018)

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Dr. Eric Mazur

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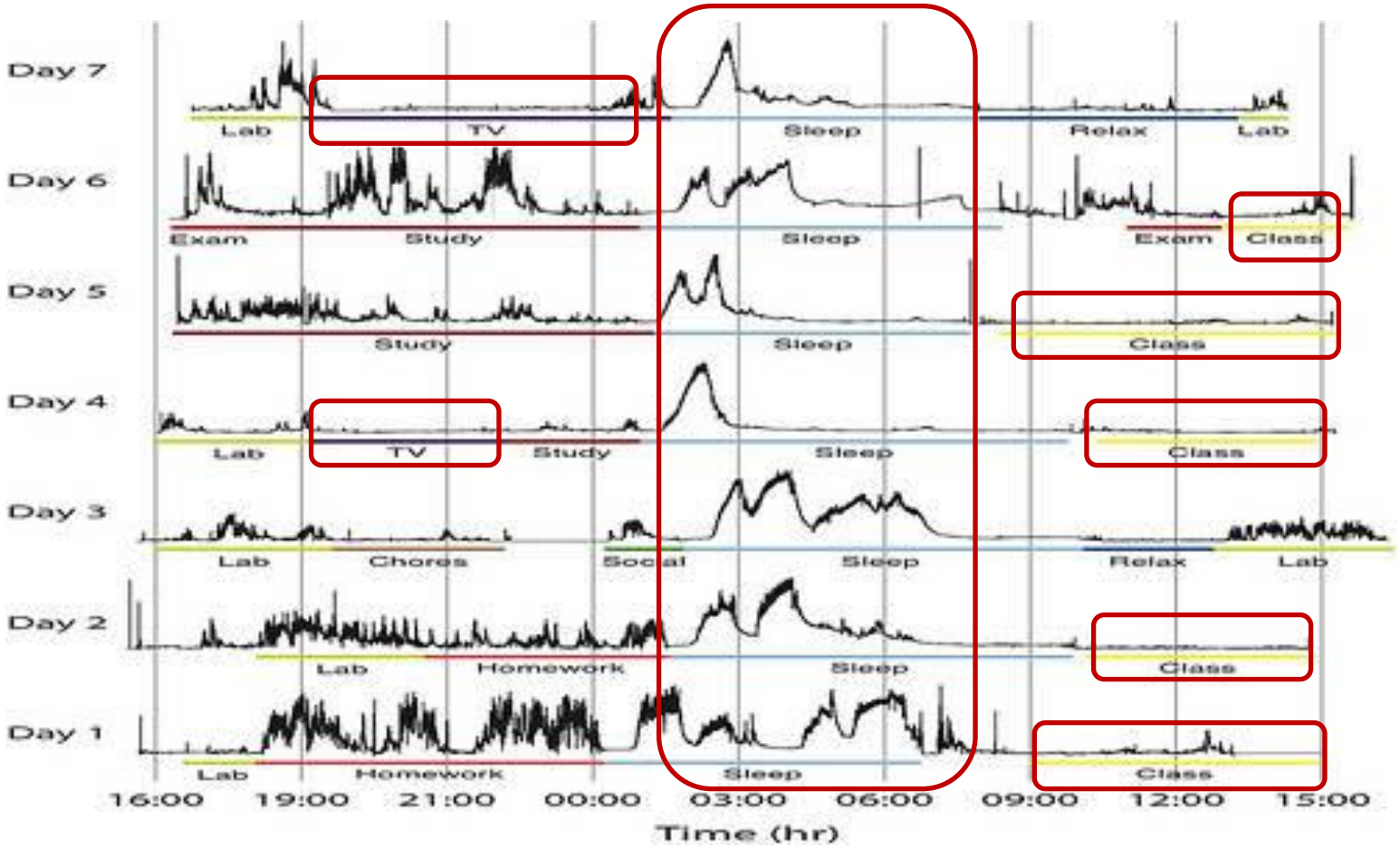
Engagement



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Generative “Do First” Learning: Perfect Icing

What I Should Have Done:

3 cups powdered sugar
1/3 cup butter or margarine, softened
1 1/2 teaspoons vanilla
1 to 2 tablespoons milk

What I Did:

4 cups powdered sugar
1/3 cup butter or margarine, softened
1 1/2 teaspoons vanilla
1 to 2 tablespoons milk

How Do I Fix It?:

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DO

TELL

SHOW

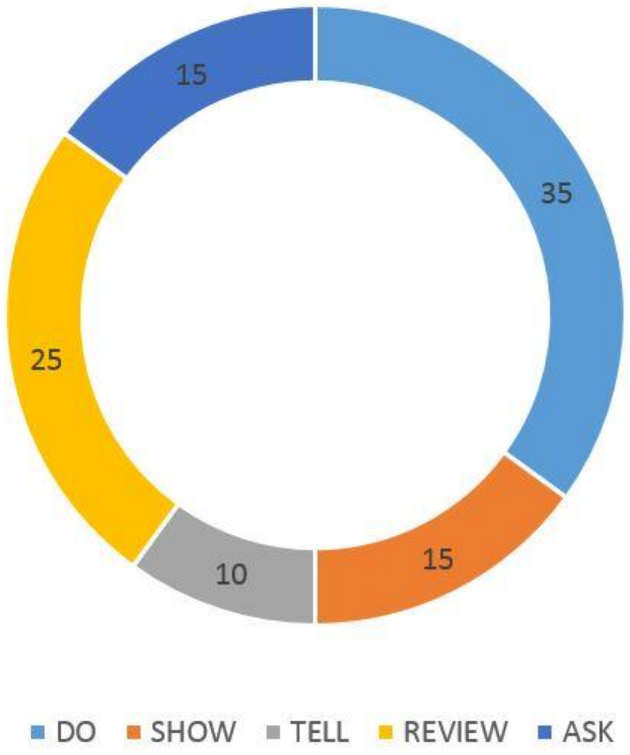
DO

TELL

REVIEW

ASK

ASK



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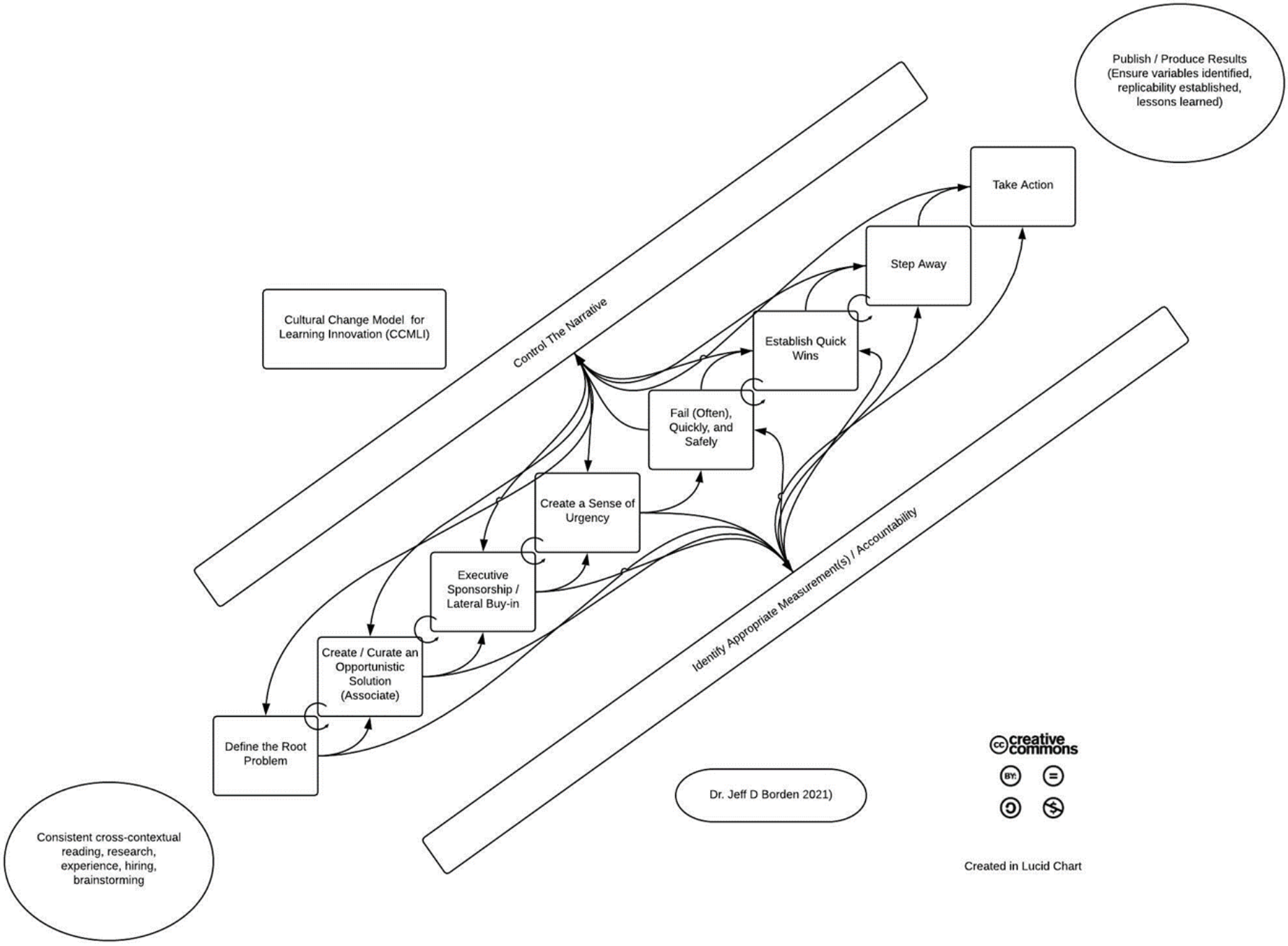
Publish / Produce Results (Ensure variables identified, replicability established, lessons learned)
Take Action
Step Away
Cultural Change Model for Learning Innovation (CCMLI)
Control The Narrative
Establish Quick Wins
Fail (Often), Quickly, and Safely
Create a Sense of Urgency
Executive Sponsorship / Lateral Buy-in
Create / Curate an Opportunistic Solution (Associate)
Define the Root Problem
Identify Appropriate Measurement(s) / Accountability
Dr. Jeff D Borden 2021)
Consistent cross-contextual reading, research, experience, hiring, brainstorming
Created in Lucid Chart

Thank You!

Read
- http://jeffpresents.com
- https://www.iceinstitute.org/blog-1/
- http://d2l.com/teaching-and-learning-studio

Connect
- jborden2@nu.edu
- jborden@jeffpresents.com

Follow
- @bordenj
- Linkedin.com/prospeaker

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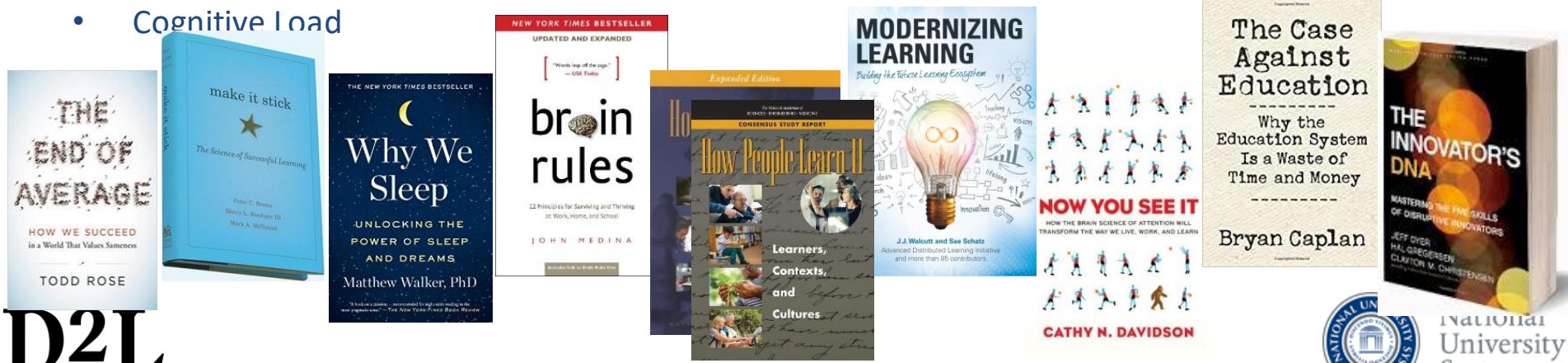
Cognition

- What is Learning?
- Outcomes
- Data
- Literacy / Numeracy (across the curriculum)
- Instructional Design
- Do, Show, Tell, Review, Ask
- Blind Spots
- Averagarianism
- Associative Thinking
- Groups (Forming, Process, Accountability)
- Cognitive Load
- Authentic Assessment
- Desirable Difficulties
- Bad learning neurotransmitters
- Good learning neurotransmitters
- Pattern Recognition
- Images vs Words / Text
- Generalization vs Specialization
- Transferrence
- Lecture vs Active Learning
- Frames & Mechanics
- Narrative
- Zone of Proximal Development



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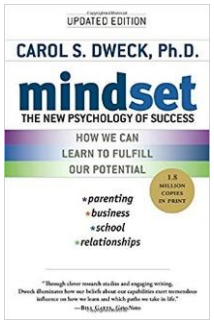
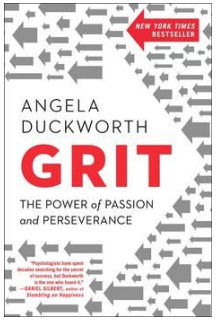
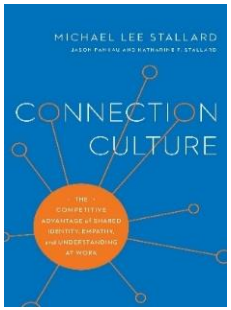
Affection / Conation

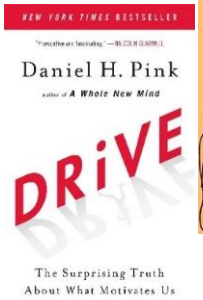
- Connection
- Caring
- Support
- Friendship
- Affinity
- Mentors
- Pride
- Systems Thinking
- Innovation

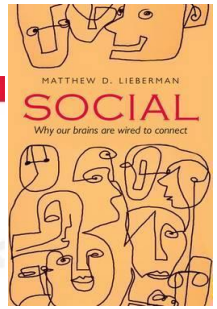
- Resilience
- Motivation
- Tenacity
- Open-Mindedness
- Self-Discipline
- Growth Mindset
- Social Intelligence
- Curiosity
- Creativity

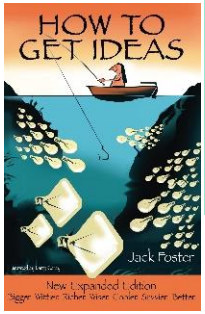


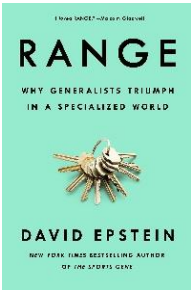


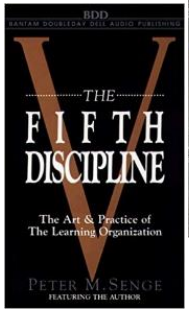


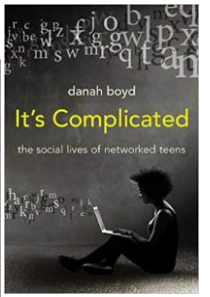












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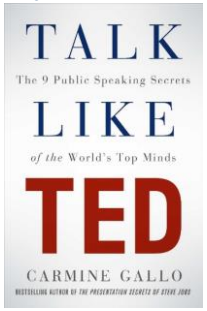
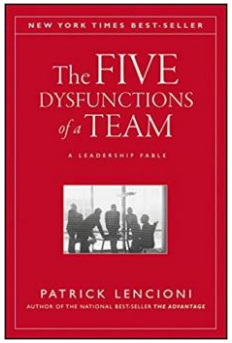
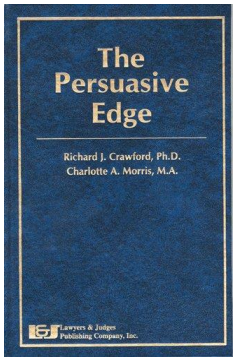
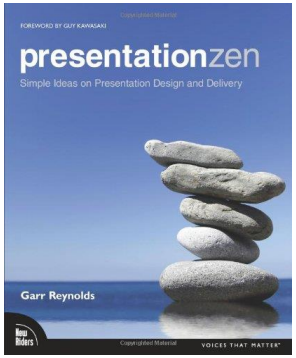
Communication

- Nonverbals (Semiotics)
  - Optics
  - Objectics
    - Visual Aids
  - Proxemics
  - Haptics
  - Vocalics
  - Kinesics
  - Chronemics
- Narrative
  - Disequilibrium
  - Resolution
- Humor
  - When and when not
- Engagement
  - Culture









- Persuasion
  - Monroe's Motivated Sequence
  - Aristotle's Canons of Rhetoric
- Informing
  - Credibility
  - Novelty
- Introductions
  - Attention / Focus Grabbing
  - Statement of goodwill
  - Preview / Thesis
- Teams / Groups
  - Formation
  - Task / Performance Mgmt
  - Accountability

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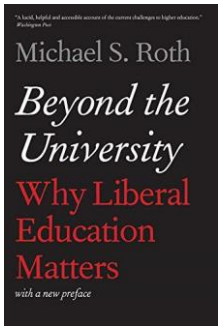
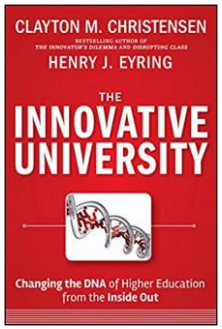
Innovate Better: Recommended Reading

- How To Get An Idea (Foster, 2007)
- Drive (Pink, 2011)
- Mindset (Dweck, 2007)
- Brain Rules (Medina, 2014)
- Now You See It (Davidson, 2012)
- The End of Average (Rose, 2016)





- The Gamification of Learning and Instruction (Kapp, 2012)
- Active Learning: 101 Activities to Teach any Subject (Silberman, 1996)
- What the Best College Teachers Do (Bain, 2004)
- A Whack on the Side of the Head (Von Oech,

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Teach Better: Good Follows

- Phil Hill
- George Siemens
- Jeffrey Selingo
- Jackie Gerstein
- Larry Ferlazzo
- Dan Meyer
- Derek Muller
- Geoff Leigh
- Emma Zone
- Neil Mosley
- Jeff Borden

- e-literate
- WCET
- OLC
- Educause
- THE (Times Higher Ed)
- ProfHacker
- Ed Biz
- Eduventures
- TheAtlanticEducation
- Veritasium
- Smarter Every Day
- Open University

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Teach Better: Recommended Reading

- Borden, J. (2021). Education 3.0: Teaching and learning across modalities. IGI Publishing.
- Borden, J. (2020). Non-Cognitive Signals and Systems: The Science and Technology of Connectedness. Chapter 13 from Edited Book in Early Warning Systems and Targeted Interventions for Student Success in Online Courses (Glick, et.al.). IGI Publishing.
- Borden, J. (2020). The Science and Technology of Educational Interconnectedness. Chapter 5 from Edited Book in InternationalPerspectives on the Role of Technology in Humanizing Higher Education (Blessinger, et.al.). HETL Publishing.
- Boyd, D. (2014). It's complicated: the social lives of networked teens. Yale University Press.
- Brown, P. C., Roediger, H. L. III, & McDaniel, M. A. (2014). Make it stick: The science of successful learning. Belknap Press of Harvard University Press.
- Caplan, B. (2018). The case against education: Why the education system is a waste of time and money. Princeton University Press.
- Christensen, C. (2008). Disrupting class: How disruptive innovation will change the way the world learns. McGraw Hill: OH
- Crawford, R., Morris, C. (2011). The persuasive edge. 2nd ed. Lawyers & Judges Publishing Company, Inc.
- Csikszentmihalyi, M. (2008). Flow: The psychology of optimal experience. Harper Perennial Modern Classics.
- Davidson, C. N. (2011). Now you see it: How the brain science of attention will transform the way we live, work, and learn. New York, NY: Viking.
- Dweck, C. (2006). Mindset: The new psychology of success. Random House LLC.
- Dyer, J., Gregersen, H. B., & Christensen, C. M. (2011). The innovator's DNA: mastering the five skills of disruptive innovators. Boston, Mass.: Harvard Business Press.
- Epstein, D. (2019). Range: Why generalists triumph in a specialized world. Riverhead Books; Illustrated Edition
- Feldstein, M. (2013). Can Pearson Solve The Rubric's Cube? Retrieved February 1, 2014 from http://mfeldstein.com/can-pearson-solve-rubrics-cube/
- Foster, J. (2007). How to get ideas. Berrett-Koehler Publishing, Inc.: CA
- Gallup-Purdue index. (2014, January 1). Gallup-Purdue index releases inaugural findings of national landmark stu.dy. Retrieved May 13, 2014, from http://www.purdue.edu/newsroom/releases/2014/Q2/gallup-purdue-index-releases-inaugural-findings-of-national-landmark-study.html
- Johansen, B. (2017). The new leadership literacies: Thriving in a future of extreme disruption and distributed everything. Berrett-Koehler Publishing, Inc.: CA
- Johnson, J., Rochkind, J., & Ott, A. (2010). Are we beginning to see the light. Public Agenda.
- Knowles, M.S. (1984). Adult learning: theory and practice. In L. Nadler (ed.), The Handbook of Human Resource Development. New York: John Wiley and Sons. Pages 6.1-6.23.
- Kolb, D.A. (1984). Experiential learning: Experience as the source of learning and development. Englewood Cliffs, NJ: Prentice Hall.
- Kotter, J. P. (1996). Leading change. Boston, Mass: Harvard Business School Press.
- Lencioni, P., & Stransky, C. (2006). The five dysfunctions of a team. New York: Random House Audio.
- Manyika, J., Chui, M. (2013). MBAs can't afford to end their math education with calculus. Retrieved March 6, 2014 from http://www.mckinsey.com/insights/mgi/in_the_news/mbas_cant_afford_to_end
- McGonigal, J. (2011). Reality is broken. Jonathan Cape, London.

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Teach Better: Recommended Reading

- Medina, J. (2008). Brain rules: 12 principles for surviving and thriving at work, home, and school. Pear Press.
- Merriam, S. B., & Caffarella, R. S. (1999). Learning in adulthood: A comprehensive guide. San Francisco: Jossey-Bass Publishers.
- National Academies of Sciences, Engineering, and Medicine (U.S.)., National Academies of Sciences, Engineering, and Medicine(U.S.)., & National Academies of Sciences, Engineering, and Medicine (U.S.). (2018). How people learn II: Learners, contexts, and cultures.
- O'Mahony, T.K. https://www.researchgate.net/profile/Timothy_Omahony Learning in Informal and Formal Environments (LIFE) Center
- Pink, D. H. (2011). Drive: The surprising truth about what motivates us. Penguin.
- Ripley, A. (2013). The smartest kids in the world and how they got that way, Ed.
- Rose, T. (2016). The end of average: How we succeed in a world that values sameness. HarperOne; Illustrated Edition.
- Selingo, J. (2013). College unbound.
- Sener, J. (2009). "Book Review of 'Disrupting Class' by Clayton M. Christensen, Michael B. Horn, and Curtis W. Johnson" eLearn Magazine, Vol 2009, Issue 12. Retrieved March 5, 2015 from: http://elearnmag.acm.org/featured.cfm?aid=1669244
- Schank, R. C. (2011). Teaching minds: How cognitive science can save our schools. New York: Teachers College Press.
- Schmidt, W. H., & McKnight, C. C. (2012). Inequality for all: The challenge of unequal opportunity in American schools. Teachers College Press.
- Senge, Peter M. (1990). The fifth discipline : the art and practice of the learning organization. New York :Doubleday/Currency
- Simons, Robert L. Seven Strategy Questions: A Simple Approach for Better Execution. Harvard Business Review Press, 2010.
- Spellings, M. (2006, August, 10). A test of leadership: Charting the future of U.S. higher education. Commission Reports, Retrieved September 12, 2006, from http://www.ed.gov/about/bdscomm/list/hiedfuture/reports/final-report.pdf
- Stallard, M. (2020). Connection culture: The competitive advantage of shared identity, empathy, and understanding at work. 2nd Edition. Association for Talent Development.
- Tough, P. (2019). The years that matter most. Houghton Mifflin Harcourt
- Uldrich, J. (1996). Jumping the curve: Innovation and strategic choice in an age of transition. San Francisco, CA: Jossey-Bass.
- Uldrich, J. (2012). Foresight 20/20. Edina, MN: Beaver's Pond Press.
- Walcutt, J.J., Schatz (2019). Modernizing Learning. ADLNET.GOV Publishing.
- Walker, M. P. (2017). Why we sleep: Unlocking the power of sleep and dreams.
- Welch, J. (2011). http://researchnetwork.pearson.com/college-career-success/all-criticism-and-no-leadership-make-jack-a-bad-instructor#sthash.MOnz1Jxj.dpuf
- Zak, P. (2017). The neuroscience of trust. Harvard Business Review, February, 2017. Retrieved from https://hbr.org/2017/01/the-neuroscience-of-trust
- Zull, J. E. (2002). The art of changing the brain: Enriching teaching by exploring the biology of learning. Stylus Publishing, LLC.

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